Comprehensive Plan:

Town of Grottoes, Virginia

_____(INSERT FILE DATE)

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Acknowledgements

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Dr. Nicholas Swartz

	Title	Page Number
	List of Tables	5
	List of Figures	6
Section 1	**Introduction**	9
Section 1.1	Introduction	10
Section 1.2	History of Comprehensive Plans in the Town of Grottoes	11
Section 2	**History and Basic Information**	12
Section 2.1	Overview and History of the Town of Grottoes	13
Section 2.2	Location	15
Section 2.3	Physiology and Topography	16
Section 2.4	Climate	17
Section 2.5	Mineral Resources	18
Section 2.6	Water Resources, Flood Plains, Drainage System, and Development Constraints	19
Section 2.7	Housing	21
Section 2.8	Population	24
Section 3	**Town Services**	25
Section 3.1	Administrative Structure	26
Section 3.2	Community Facilities	28
Section 3.3	Community Services	31
Section 3.4	Education	34
Section 4	**Transportation**	40
Section 4.1	Introduction and Previous Transportation Studies	41
Section 4.2	Functional Classification System	42
Section 4.3	Traffic	45
Section 4.4	Maintenance, Rail and Air Service	46
Section 4.5	Needs Assessment and Recommendations	47
Section 5	**Tourism and Economic Development**	49
Section 5.1	Objectives and Goals	50
Section 5.2	Town of Grottoes Assets and Amenities	51
Section 5.3	Amenity Analysis	54
Section 5.4	Best Practices	55
Section 5.5	Recommendations	57
Section 6	**Appendix**	64
Section 6.1	Town of Grottoes Survey Results	65
Section 6.2	References	87

Table of Contents

List of Tables

Table Name	Page Number
1. Geographic Systems	15
2. Grottoes Weather by Month	17
3. Single Family Housing Occupancy	21
4. Single Family Housing Costs	22
5. Ad-Hoc Federal Functional Classification Changes	44
6. Factored Short Term Traffic Count	45

List of Figures

Figure Name	Page Number
1. Map of Battle of Port Republic	13
2. Grand Caverns #1	14
3. Grottoes Topography	16
4. Grand Caverns #2	18
5. Grottoes Flood Plains Map	19
6. Grottoes Land Use Classification	20
7. Weaknesses of Housing Availability Within the Town of Grottoes	23
8. Population Change in the Town of Grottoes since 1920	24
9. Population Distribution by Age	24
10. Population Distribution by Race	24
11. Grottoes Administrative Structure	26
12. Inside Town Hall	27
13. Grand Caverns Gift Shop	28
14. Grand Caverns Gift Shop Mineral Sifter	28
15. Grand Caverns' Daunte's Inferno	28
16. Grottoes Pool	29
17. Mountain View Park Sign	29
18. Front View of Grottoes Town Hall	29
19. Inside Grottoes Children's Library	30
20. Grottoes Fire Department	31
21. Chief Charlie's Kid's Fish Day Photo #1	31
22. Chief Charlie's Kid's Fish Day Photo #2	31
23. Grottoes Police Department Photo	32
24. Grottoes Rescue Squad	32
25. Rockingham County Public Schools Sign	34
26. South River Elementary School	34
27. Montevideo Middle School	35
28. Spotswood High School	35
29. James Madison University	36
30. Eastern Mennonite University	37
31. Mary Baldwin College	37
32. Bridgewater College	38
33. Functional Classification System	43
34. Mountain View Park River View	42
35. Mountain View Park Picnic Shelter	42
36. Grand Caverns #3	42
37. Canon in Front of Town Hall	43
38. Grottoes Fire Truck	43
39. Ciro's Flying Pizza	44
40. Wood Fired Oven	44
41. Downtown Harrisonburg	47

42. Would You Like to See More Tourists Visit the Town of Grottoes?	49
43. Public Relations Web	51
44. Weaknesses of Housing Availability in Grottoes	53
45. How can the Town of Grottoes Attract More Visitors and Customers?	55
46. Top Three Responses: What Kind of Businesses and Other Services Does the Town of Grottoes Need?	56

TOWN OF GROTTOES COUNCIL

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Mark Sterling, Councilmember
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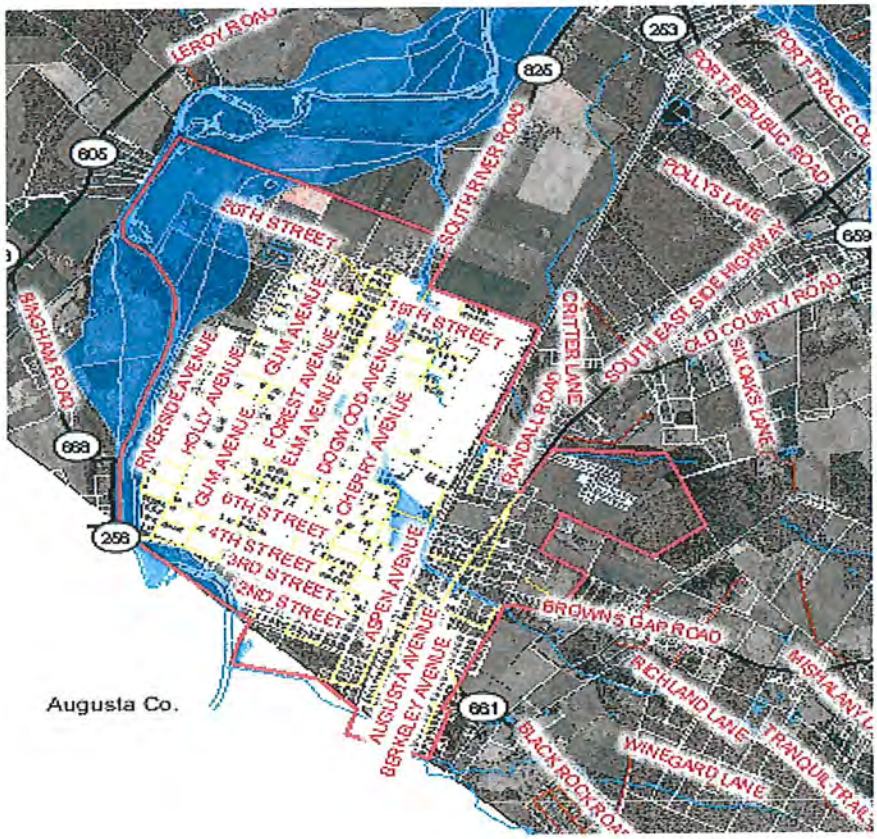
Section 1: Introduction



Section 1.1: Introduction

A comprehensive plan serves as a framework by which a municipality can identify its needs and rationally allocate its resources to meet those needs. The procedure by which a Virginia municipality prepares a comprehensive plan is outlined in the Code of Virginia. A comprehensive plan covers all aspects of community developments. The plan may include, but is not limited to: (1) designating areas for various public and private development; (2) designating a comprehensive system of transportation facilities; (3) delineating a system of community service facilities including schools, parks, and public buildings; and (4) designating areas for renovation and other special community programs. A comprehensive plan is general in nature. It designates the approximate location and character for each feature shown in the plan. A comprehensive plan should present the long-range recommendations for the general development of the territory covered by the plan.

Once the local governing body adopts a comprehensive plan, it has the following legal status:

> *"...it shall control the general or approximate location, character, and extent of each feature shown on the plan. Thereafter no...(improvement), whether publicly or private owned, shall be established, constructed, or authorized, unless and until...submitted to and approved by the local commission as being substantially in accord with the adopted comprehensive plan or part thereof."*

Thus, the plan is the general guideline for community development and, once adopted, the local commission has the authority to approve or disapprove proposals for development based on conformance of the proposal with the plan.

The comprehensive plan also serves as the basic planning document upon which other implementation documents, such as the official map, zoning ordinances, and subdivision regulations should be based. These documents are more detailed as to specific requirements, whereas the plan is more concerned with the overall reasoning upon which the specific requirements are based.

The comprehensive plan is part of an on-going community development process, and as such, the Virginia State Code requires that "at least once every five years the comprehensive plan, or the completed parts of it, shall be reviewed by the local commission to determine whether it is advisable to amend the plan." This requires the Town of Grottoes to update or amend its comprehensive plan every five years.

Section 1.2: History of Comprehensive Plans in the Town of Grottoes:

In 1985, the Town of Grottoes Town Council began a Community Development Program, whose overall goal is:

"To work toward the orderly and efficient development of the Town of Grottoes, thereby providing a desirable living environment for this and future generations."

The Town of Grottoes adopted its first comprehensive plan in 1977. The plan was prepared through the Rockingham County Planning Department, directed by the Grottoes Area Citizen Advisory Committee. In 1985, the Town Council directed the planning commission to update the original plan. In 1998 and 1999, a second update was completed. The plan was also updated in 1999 and 2005.

Section 2: History and Basic Information

Section 2.1: Overview and History of the Town of Grottoes

Early History Settlement

The Town of Grottoes is located in the Rockingham County first settled on a grant of sixty thousand acres on the Shenandoah River around 1735 by John Taylor, John Thomas, and William Beverly[1]. Although the settlement became known as "Liola", the name changed to "The Grottoes" during the late 1890's when the Grottoes Company began to buy large pieces of land in the area[2]. The President of the Grottoes Company, Jed Hotchkiss, was the mapmaker for Civil War General Stonewall Jackson and became acquainted to the region during the war while battling Northern troops that occupied the Shenandoah Valley[3]. Hotchkiss, holding the military rank of Major, soon gained significant financial support from financiers in Washington D.C., New York, and Philadelphia and in 1890 the Town was renamed once more to "Shendun", where it would keep the name until its final conversion to "Grottoes" in 1912 by an Act of the Virginia General Assembly[4]. Original settlers believed Grottoes was a great site for development. Equipped with adequate land for manufacture industries, quality water supply from the South River, opulent beds of coal for ore mining, and the aesthetic Blue Ridge Mountains on the horizon made the location most ideal[5].

Figure: 1

Development and Downfall Era

Outside investment proved impetus for Grottoes. By the year 1891, there was a great deal of expansion in industry. An electrical plant was implemented, creating many new jobs and attracting new residents. The population during this time soared to 700. The Expansion transformed the town as money poured from outside investors from Washington D.C., Philadelphia, and New York City[6]. The population increased, new roadways and buildings were constructed, and soon phone lines connected Shendun to Staunton in 1891 with the creation of an electric plant[7]. Staunton had been incorporated as a City in 1871[8], approximately 19 miles Southwest of Shendun. However, prosperity would not last and soon the Town's growth would be stunted. In 1893, tragedy hit the Town when the Grottoes Hotel burned; the Town newspaper went bankrupt followed by the Grottoes Company, as the company would no longer collect on stock subscriptions and sales soon ceased[9]. Families were left with a rough set of alternatives and soon left the Town. The heart of the Town then dissolved. Attempts to rejuvenate the Town were seldom. Residents who remained in Town made concerted efforts to lease the caves[10], streetcar lines, and other businesses; however, Shendun's fiscal health plummeted[11]. By 1893, the nation was in a state of depression (Panic of 1893) resulting in widespread bank failures and economic depression[12]. It would be a slow recovery for the Town of Grottoes.

---

[1] "Town of Grottoes - Home." *Town of Grottoes - Home*. N.p., n.d. Web. 07 Dec. 2013.
[2] "Blue Ridge Skyline Parkway Drive." *Blue Ridge Skyline Parkway Drive*. N.p., n.d. Web. 07 Dec. 2013.
[3] Ibid.
[4] Ibid.
[5] Ibid.
[6] Ibid.
[7] Ibid.
[8] "About Staunton." , *Staunton VA, Shenandoah Valley, City Manager Form of Government, Lady Staunton, ICMA*. N.p., n.d. Web. 07 Dec. 2013.
[9] "Town of Grottoes - Home." *Town of Grottoes - Home*. N.p., n.d. Web. 07 Dec. 2013.
[10] "Town of Grottoes - Grand Caverns." *Town of Grottoes - Grand Caverns*. N.p., n.d. Web. 07 Dec. 2013.
[11] "Town of Grottoes - Home." *Town of Grottoes - Home*. N.p., n.d. Web. 07 Dec. 2013.
[12] Ibid.

Revival to Present

The Town of Grottoes began to experience growth with the incorporation of several new businesses. In the early 1900's, the construction of the Bank of Grottoes, bowling alley, mill, blacksmith shop, several dry goods stores, real estate offices, and a woodworking plant would set into motion a slow and steady repopulation[13]. The First and Second World Wars would slow redevelopment; however, Post-World War II saw substantial growth for Grottoes. In 1948, a central water system was installed coupled with a Volunteer Fire Department[14]. Grottoes then began long-term infrastructure projects. During the early 1980's, the Town acquired two grants allowing Grottoes to construct its centralized sewer system[15]. This paved the way for new growth. New residents and businesses no longer required their own sewer system. In more recent years, with a modest increase in population to 2,668 people, Grottoes renovated the old Elementary School, constructed a new Town hall, branch library, police department, and developed a 54-acre park united with pavilions, baseball facility, a boat ramp, and a driving range[16]. Grottoes took possession of Grand Caverns from Upper Valley Regional Park Authority on October 1, 2009 remains the most valuable Town asset[17]. Grand Caverns has gained worldwide fame since its discovery by Bernard Weyer (originally called "The Weyers Caves") in 1806[18]. Since first opening in 1806, the Caverns holds fame for being the oldest continually operating show cave in the United States[19]. In 1973, the U.S. Department of Interior declared the Grand Caverns a National Natural Landmark.

Figure: 2

[13] Ibid.
[14] Ibid.
[15] Ibid.
[16] Ibid.
[17] "Town of Grottoes - Grand Caverns.
" *Town of Grottoes - Grand Caverns.*
N.p., n.d. Web. 07 Dec. 2013.
[18]"Town of Grottoes - Home." *Town of Grottoes - Home.*
N.p., n.d. Web. 07 Dec. 2013.
[19] "Town of Grottoes - Grand Caverns." *Town of Grottoes - Grand Caverns.* N.p., n.d. Web. 07 Dec. 2013.

Section 2.2: Location

The Town of Grottoes, neighboring with Augusta County, is located in the southeastern portion of Rockingham County, Virginia. Situated along Highway 340, the Town of Grottoes lies west of the Blue Ridge Mountains in the heart of the Virginia's Shenandoah Valley at (38.2699120, -078.8236465). [20] The Town of Grottoes lies approximately 144 miles from Washington D.C. and 110 miles from Richmond, Virginia. Only 15 minutes away from Interstate 81, the Town of Grottoes provides easy access to attractive geological features including: Shenandoah National Park, George Washington National Forest, the Shenandoah River, and Grand Caverns.

The incorporated area of the Town of Grottoes is 1.91 mi^2. This includes 1.88 mi^2 of land and 0.03 mi^2 of water. The relative size of the Town of Grottoes compared to neighboring cities and counties is seen here:

	Total *(sq. miles)*	Land *(sq. miles)*	Water *(sq. miles)*
The Town of Grottoes	1.91	1.88	0.03
Rockingham County	853.28	849.01	4.27
The City of Harrisonburg	17.48	17.42	0.06
Augusta County	973.86	970.00	3.86
Shenandoah County	512.18	508.78	3.40
Page County	314.08	310.86	3.22
Elkton	1.40	1.40	0.00

Table: 1

*sq. mileage figures, converted by David Good from meters, are based on Topologically Integrated Geographic Encoding and Referencing (TIGER), a geographic system developed by the Census Bureau.

[20] U.S. Census Bureau; "American FactFinder" <http://factfinder2.census.gov> Calculated by David Good; (October 17th, 2013).

Section 2.3: Physiology and Topography

The Town of Grottoes is located in the "The Great Valley" sub province of Virginia's valley region. This area is characterized by broad valleys, with low to moderate slopes and elevations of 500 – 1500 feet. Underlying these geographic features is the presence of abundant limestone.[21]

This natural topographic division is part of the Appalachian Valley, an old geosyncline in which sediments were deposited, consolidated, and later folded and eroded to form the topography existing today. This province, controlled by its structural geology, is distinct from its neighboring provinces. Neighboring provinces range from low slopes to coastal flatlands. The current topography is observed below[22]:

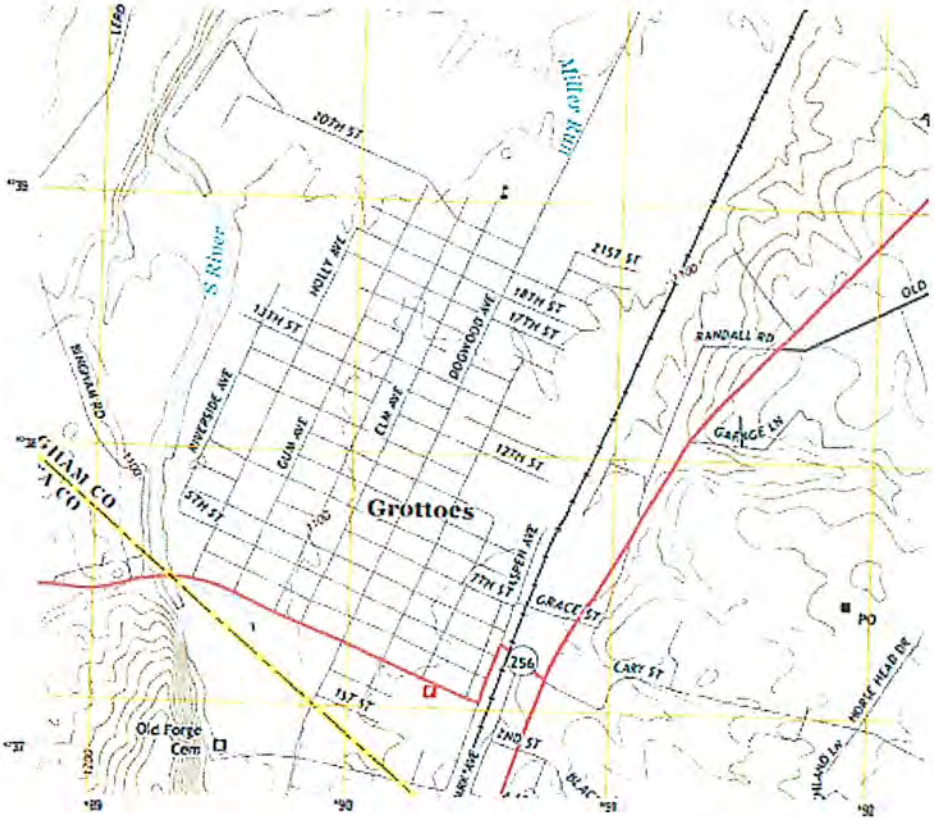


Figure: 3

ROAD CLASSIFICATION

Expressway		Local Connector	
Secondary Hwy		Local Road	
Ramp		4WD	

Interstate Route US Route State Route

[21] Bailey, C.M. "Physiographic Map of Virginia." web.wm.edu. William and Mary – Valley & Ridge province, The Geology of Virginia. http://web.wm.edu/geology/virginia/provinces/phys_regions.html#valley_ridge

[22] United States Dept. of the Interior – U.S. Geological Survey, 7.5-Minute Series Topographic Maps, Scale 1:24,000. Grottoes, VA, http://store.usgs.gov/b2c_usgs/usgs/maplocator/(ctype=areaDetails&xcm=r3standardpitrex_prd&carea=%24ROOT&layout=6_1_61_48&uiarea=2)/.do

Section 2.4: Climate

The Town of Grottoes has a temperate climate; therefore, the summers rarely become too hot and cool nights prevail most times. The temperatures during the summer months of June through August average 84.1° (F) with lows averaging 58.1° (F). The temperatures during the fall months of September and October average 60.3° (F) with lows averaging 47.5° (F). The winter months in the Town of Grottoes are generally not frigid, but colder periods can occasionally occur. The average high temperature during the winter months of December through February is 44.7 ° (F), while the lows average at 23.4 ° (F). The average year round temperature is 53.2 ° (F). The temperatures during the spring months of March through May average 52.3° (F) with lows averaging 53.3 ° (F). The Town of Grottoes annually receives 36.02 inches of precipitation leading to a substantial amount of groundwater, perfect conditions for a strong growing season. Snowfall averages around 25.5 inches annually.

The average climate of the region is observed below[23]:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average High Temperatures (F)	43.3	45.6	55.4	65.5	74.8	82.3	85.9	84.2	78.5	67.7	55.7	45.3	65.3
Average Low Temperatures (F)	22.2	23.3	30.8	39	48.5	56.9	60.9	59.5	53.1	41.9	32.7	24.6	41.1
Average Total Precipitation (in.)	2.31	2.12	2.87	2.73	3.63	3.82	4.13	3.89	3.2	2.63	2.28	2.4	36.02
Average Total Snowfall (in.)	7.1	7.1	4.2	1	0	0	0	0	0	0.2	1.3	4.6	25.5

Table: 2

[23] Southeast Regional Climate Center – The University of North Carolina Chapel Hill, NC. (2012). Period of Record Monthly Climate Summary, 1893 – 2012. Dale Enterprise, VA [producer]. Web. http://www.sercc.com/cgi-bin/sercc/cliMAIN.pl?va2208, September 29, 2013.

Section 2.5: Mineral Resources

Over 500 thousand years ago, huge inland seas once canvassed the majority of the eastern US. During this time, large amounts of the sediment and minerals such as calcium, manganese, and iron combined to form limestone, shale, and sandstones. Once seas began to recede, these huge sedimentary rock masses were folded, breaking apart and thrusting upwards as tectonic plates shifted. These collisions resulted in the formation of the Appalachian Mountain System. Over time, this mountain chain would be eroded by rain, groundwater, streams and other weather related factors. Weaker rocks such as limestone and shale were eroded further and gave way to broad valleys; harder and denser rocks, such as sandstone and quartzite were left behind and still stand today.[24]

Figure: 4

Over thousands of years in the valleys, rainfall and surface water would seep through the porous limestone rocks, eventually forming large underground rivers. Once the water table lowered, the underground rivers had left behind large subterranean chambers. Afterwards, ground water and rainfall would continue to seep through the soil. In doing so, it would combine with other minerals in the soil such as calcium, manganese and iron. As this mineral laden water permeated through the ground, it would reach the large chambers and evaporate. Left in the wake of this evaporation was mineral deposits. We know these mineral deposits today as formations that make up caverns.[25]

[24] "Geology of the Cave – Grand Caverns," last modified 2013, http://www.grandcaverns.com/v.php?pg=49.
[25] UVRPA, "The Story of Cave Hill", 2nd Edition, 2010

Section 2.6: Water Resources, Flood Plains, Drainage System, and Development Constraints

Water Resources

The Town of Grottoes and surrounding areas have a relatively great groundwater supply. Wells have been drilled throughout the valley for residential and other uses, creating the community well system. Copious supplies of groundwater, especially in the eastern part of the county, make this area favorable for industrial development.[26] Water wells, such as those drilled by Merck and Co., have yielded large amounts of water. [27]The Town of Grottoes well was drilled at the depth of 303 ft. where the main supply of water was encountered, roughly 200 gallons per minute. [28]

Flood Plains

During period of heavy rains or during spring thaws, most streams in Rockingham County are subject to flooding. Most areas are safe from major flooding events, with the exception of the Northwest part of Grottoes, near 20th street. These areas are currently undeveloped. The current flood plain map is seen below[29]:

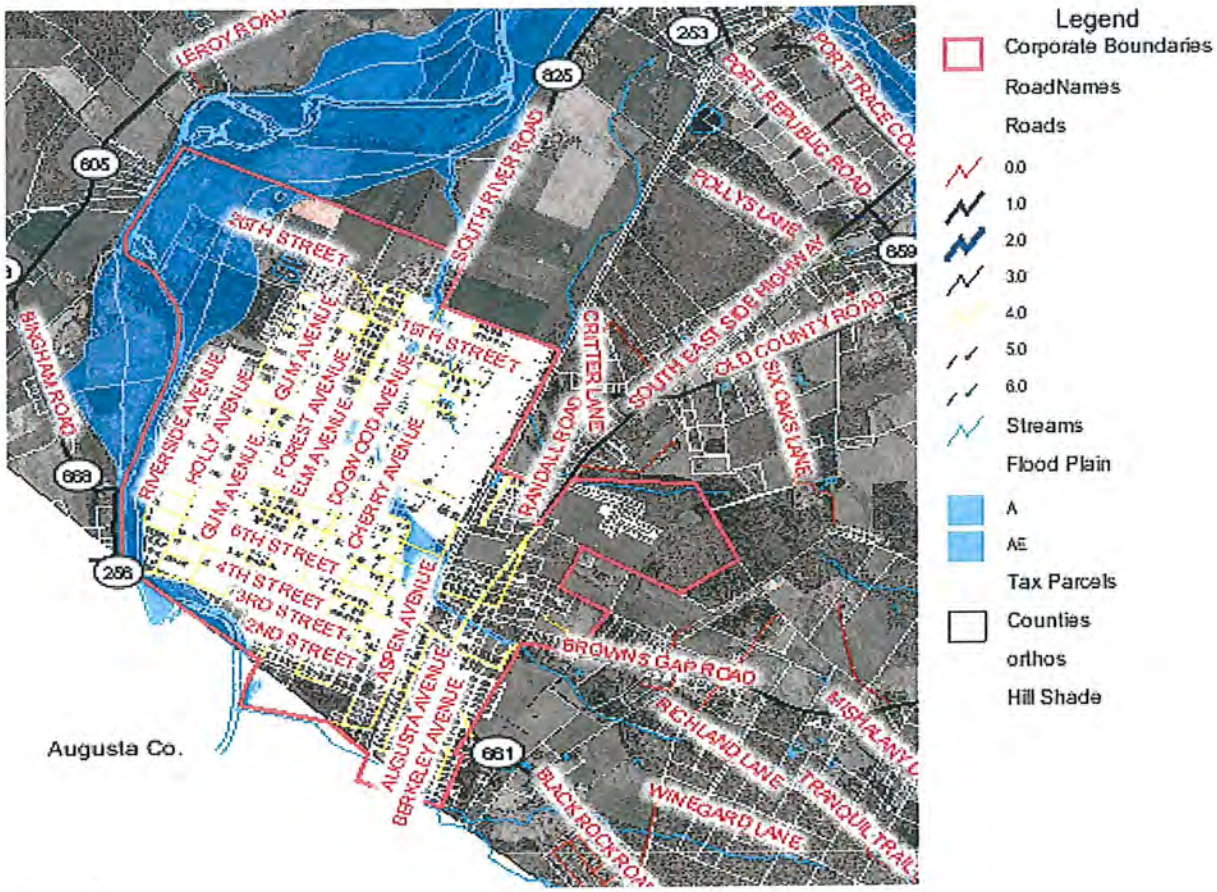


Figure: 5

[26] Brent, William, *Geology and Mineral Resources of Rockingham County – Bulletin 76*(Commonwealth of Virginia – Department of Conservation and Economic Development – Division of Mineral Resources: Charlottesville, VA, 1960). Page 8. accessed October 18th 2013. http://www.dmme.virginia.gov/commercedocs/BUL_76.pdf.

[27] Ibid. Page152. accessed October 18th 2013. http://www.dmme.virginia.gov/commercedocs/BUL_76.pdf.

[28] Ibid. Page156. accessed October 18th 2013. http://www.dmme.virginia.gov/commercedocs/BUL_76.pdf

[29] Source: Rockingham County GIS, Department of Community Development. "Interactive GIS Mapping, Rockingham County – Grottoes Flood Plains." Updated September 16, 2013. http://rockingham.gisbrowser.com/viewer.htm?Title=Rockingham%20County%3A%20Online%20GIS.

Drainage System

There are three major watersheds in Rockingham County: the North Fork Shenandoah, the South Fork Shenandoah, and the North river, all of which drain into the Potomac River basin. Drainage and sewer improvements will rely most heavily on the aforementioned watersheds.

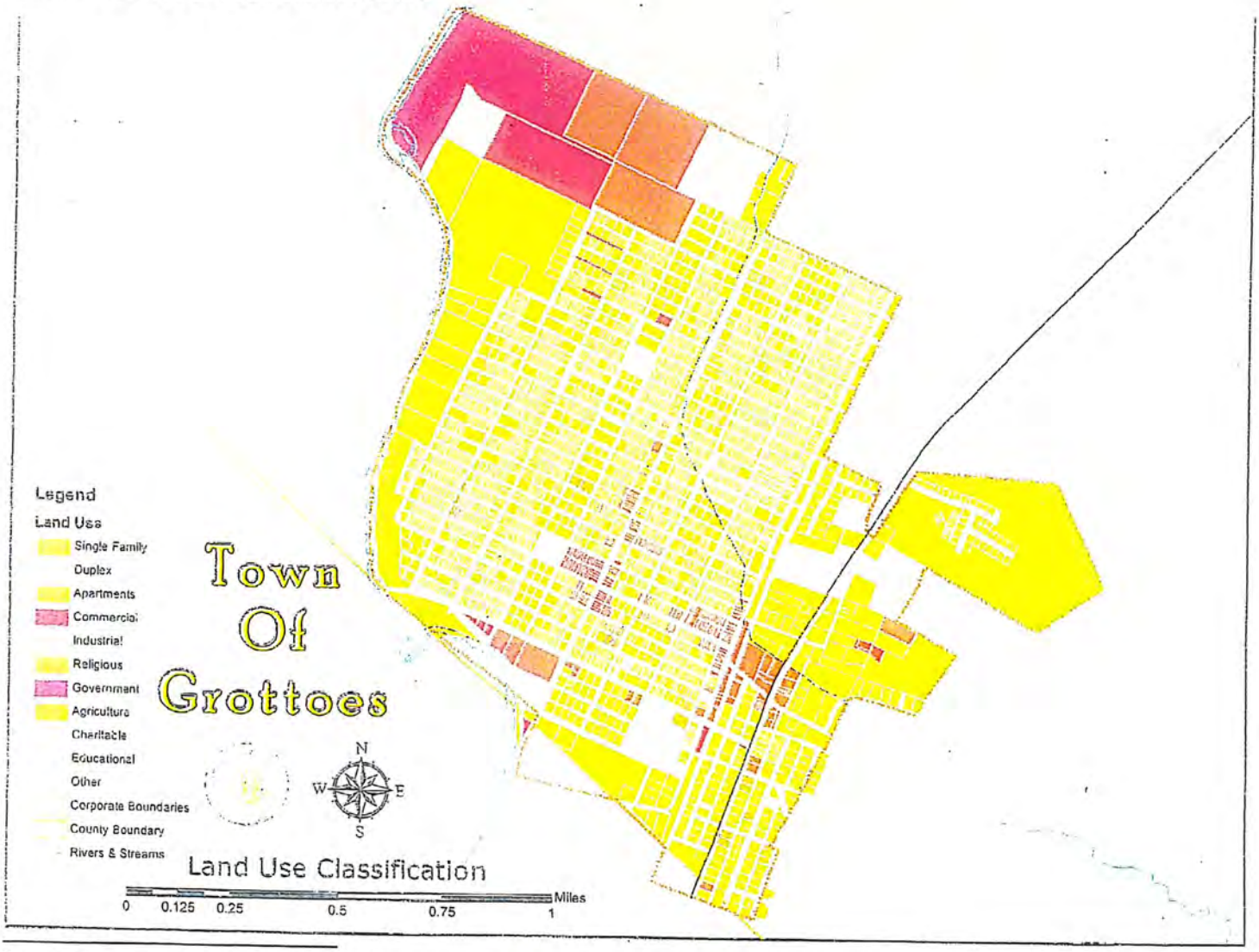
The first drainage divide cuts the Town in two, from Forest Avenue to Cherry Avenue, and then to Route 256 and Cary Street. The water to the south of the divide flows directly into the South River, whereas the water to the north of the divide flows into Miller Run and then into the South River. The second drainage divide just enters the Birch and Aspen Avenue area, and eventually flows into Miller's Run into the South River.

Development Constraints

Development constraints are geographic characteristics that limit the use of the land. One such development constraint is the previously mentioned drainage divides. The two divides allow for flooding condition in the south eastern part of the Town in the Aspen Avenue vicinity.

The other development constraint is seen in the above floodplain image. The northwestern part of Grottoes, around 20th street is subject to flooding. This will limit the capacity of development for this area.

Current land use can be observed below[30]:



[30] Source: Rockingham County GIS, Department of Community Development. [Scale not give]. "Rockingham County GIS Mapping – Land Use." Updated September 16, 2013. http://rockinghamcountyva.gov/DocumentCenter/View/291 (October 08, 2013).

Section 2.7: Housing

Housing is one of the most basic necessities of any community. Access to quality, affordable housing is important to every community. The Town of Grottoes has a bedroom community feel that is enjoyed by all its citizens.

The median housing value in the Town of Grottoes is $170,600. The median monthly owner cost distribution is the total cost that citizens pay for mortgage and other utilities; in the Town of Grottoes, the median cost is $1,142. The median number of rooms in the Town of Grottoes is 5.30 rooms and 29.5 percent of the housing units are 5 bedrooms.

The following tables represent the information stated above. Information was retrieved from the 2010 census data, accessed at census.gov and numbers were calculated by AJ Good[31].

	Total Number	Total Percentage
Total Number of Houses	1,135	100%
Occupied Houses	1,076	95%
Owner-occupied Houses	740	69%
Renter-occupied Houses	336	31%
Vacant Houses	59	5%
Vacant Houses: for rent	19	54%
Vacant Houses: for sale	2	4%

Table: 3

[31] census.gov calculator created by David Good

The average monthly owner costs in the Town of Grottoes match with the costs for Rockingham County and the United States. The monthly costs of living in Virginia are inflated due to areas such as Northern Virginia which represent higher costs of living. The Town of Grottoes is constant with regional and national data, which shows that one unit, detached houses are the most frequent.

Whereas in Virginia and the United States the next most frequent housing units are those of ten or more, in the Town of Grottoes', two-unit duplexes are more frequent. The Town of Grottoes is constant with regional and national data which shows that one unit, detached houses are the most frequent. Most of the housing units in the Town of Grottoes, along with regional and national housing, contain five rooms. This represents single-family housing, perfect for average sized families[32].

The Town of Grottoes also manages to hold on to lower than average monthly owner costs for households when compared to those of Virginia, and are aligned with the rest of Rockingham County and national averages.

Monthly Owner Costs	The Town of Grottoes, VA	Rockingham County, VA	Virginia	U.S.
$299 or Less	.007%	0.4%	0.27%	0.22%
$300 to $499	.016%	2.8%	1.75%	1.85%
$500 to $699	.070%	5.8%	4.35%	5.39%
$700 to $999	18.4%	17.2%	11.06%	14.41%
$1,000 to $1,499	55.0%	37.2%	22.79%	27.08%
$1,500 to $1,999	14.2%	20.0%	20.06%	19.94%
$2,000 or More	.031%	16.6%	39.7%	31.1%

Table: 4

[32] Ibid.

The Town of Grottoes community survey identified a perceived weakness of the Town's housing as 39% of respondents cited dilapidated and/or older homes as a being a concern. However, it should be noted that in 1996 the Town Council amended the Town Code to align with Commonwealth of Virginia's statues with regard to unsafe buildings which allows for the Town to legally initiate a process where repairs to private property can be undertaken by the Town, at the owner's expense, if the owner fails to make repairs on their own and ignores the Town's notifications. The town is currently considering an ordinance to reflect the updated State of Virginia Maintenance Code.

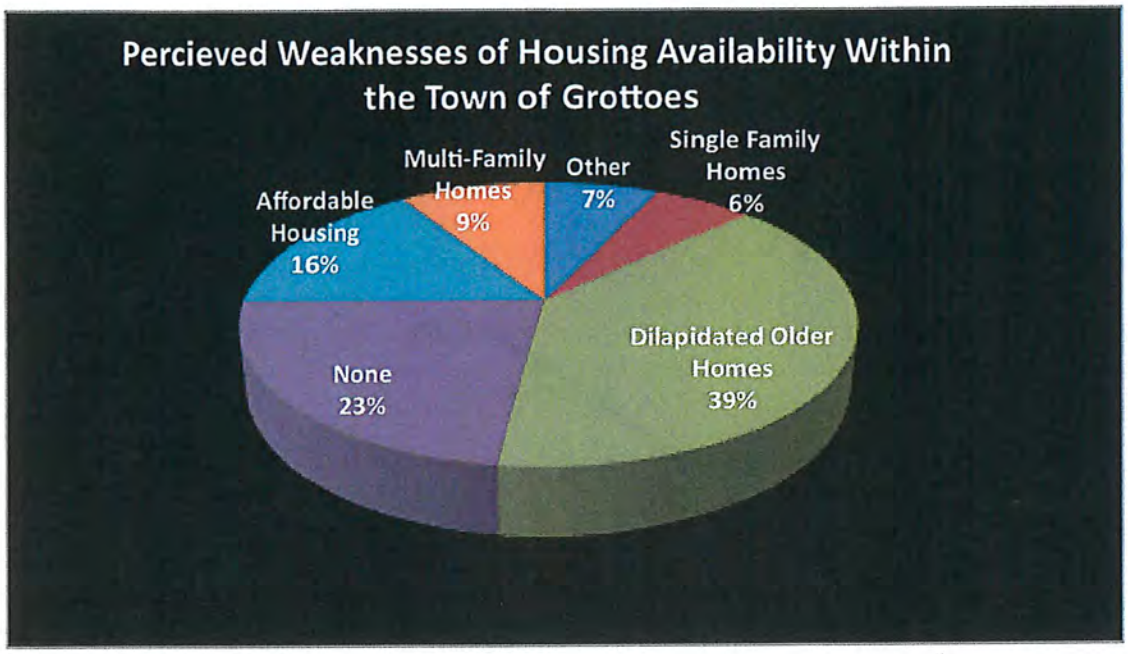


Figure: 7

Section 2.8: Population

Between 1920 and 2010, the Town of Grottoes population increased from 492 to 2,668; this represents a gain of 2,176 or a 442% increase .The greatest rate of population growth occurred within the last 25 years.

Between 1920 and 2000, the Town of Grottoes experienced a steady increase in population, and an unexpected surge in growth between 1990 and 2000. In contrast, Rockingham County experienced some small decrease in population from 1920-1930 and again from 1960-1970.

The following tables and graphs represent population data from the 2010 census on the Town of Grottoes. The population in the Town of Grottoes was 52% Female and 48% Male. The majority of citizens are between the ages of 35 and 54, following closely behind are those 17 years old and younger. The majority of residents identify as White, among the remaining population Hispanics and African Americans are the most frequent.

Population Change in the Town of Grottoes since 1920[33]

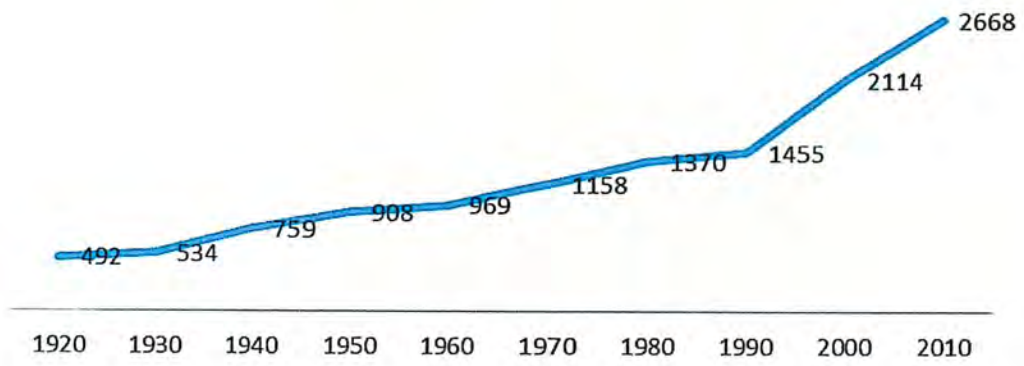


Figure: 8

Population Distribution by Age[34]

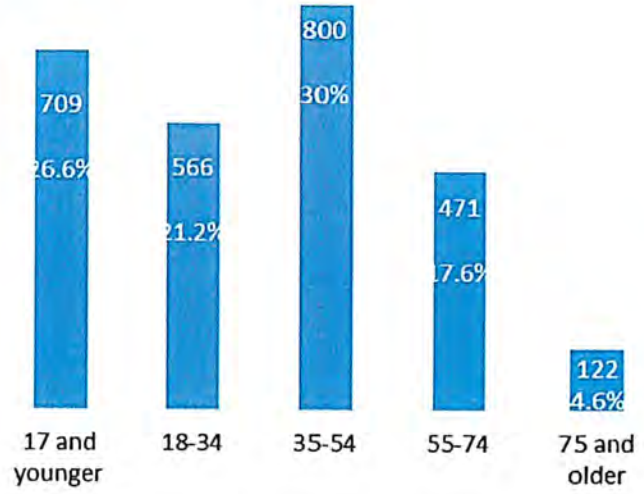


Figure: 9

Population Distribution by Race[35]

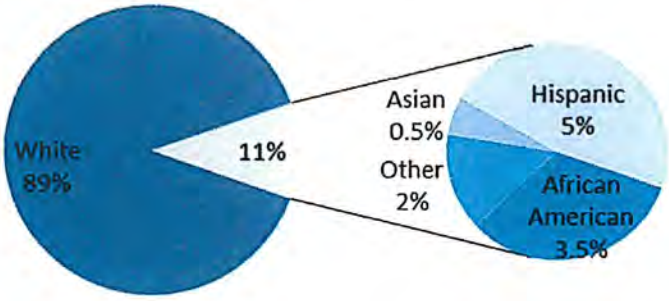


Figure: 10

[33] Information received from census.gov calculated by David Good
[34] Ibid.
[35] Ibid.

Section 3: Town Services

Section 3.1: Administrative Structure

The administration and government of the Town of Grottoes is vested in the Town Council, which includes the Mayor and the six Council Members. The Council Members serve four-year terms, whereas the Mayor has a two-year term.

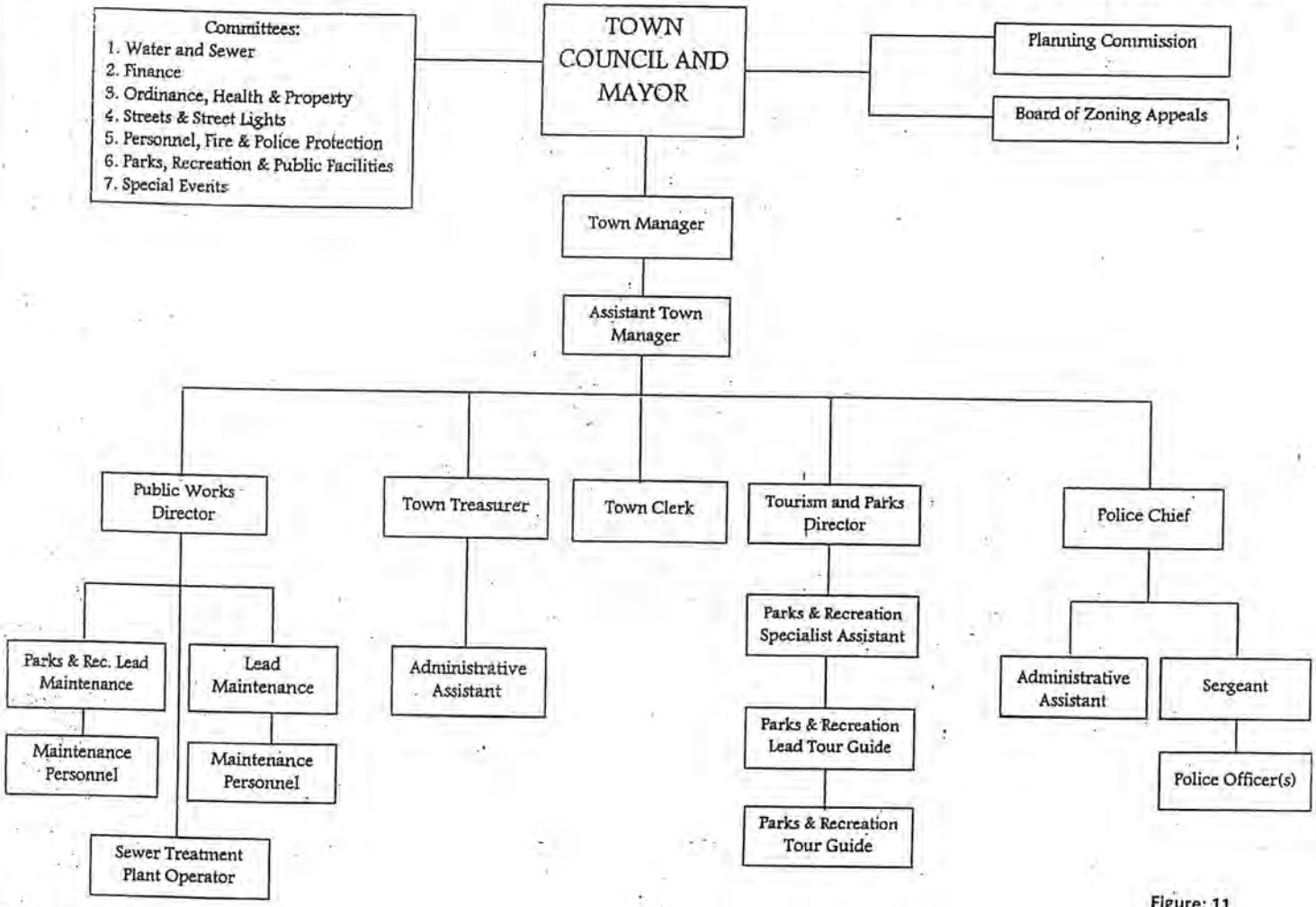


Figure: 11

Mayor

The Mayor performs the duties set out in the Town of Grottoes Charter and shall exercise general supervision of all the Town rights, franchises, properties and affairs.

Town Manager

The Town Council has the ability to appoint a Town Manager for a term determined by the Council. The Town Manager shall hire and discharge all employees needed to accomplish the efficient operation of the Town; however, he or she shall not exceed the Council's budgetary requirements in the employment of such labor, and in no case shall he or she employ labor in excess of what is necessary and adequate for the needs of the specific jobs or tasks undertaken.

Town Meetings

The Town Council meets in regular session on the second Monday of each month at 7:00pm. Special meetings shall be called by the Town Clerk or at the request of the Mayor or any three councilpersons.

Voting

In all agenda items placed before the Council a majority of the Council shall rule, except when otherwise provided. On the call of any member of the Council, the vote on a question may be taken by yeas and nays then recorded, provided that the demand is made before other business has been taken up.

Standing Committees

The council has appointed the following standing committees to effectively and efficiently appropriate needs to the following areas of Town necessities.

A. Finance Committee
B. Personnel, Fire, and Police Protection Committee
C. Ordinance, Health and Property Committee
D. Special Events Committee
E. Water and Sewer Committee
F. Parks, Recreation and Public Facilities Committee
G. Streets and Streetlights Committee

Figure: 12

Planning Commission

The purpose of the Planning Commission is to assist the Town Council with the anticipation and guidance of developmental changes. Specific tasks include the facilitation and planning of ordinances, capital improvement programs, studies, reports, and other documents for consideration by the Town Council. The Grottoes Planning Commission meets the last Tuesday of the odd months at 7:00 p.m. in the Council Chambers of the Grottoes Town Hall.

Board of Zoning Appeals

The Board of Zoning Appeals provides a means through which a property owner may seek relief from provisions of the zoning ordinance, making decisions on requests for variances and special exemptions on properties that may otherwise cause a perceived insurmountable burden.

Town Attorney

The Town Attorney shall attend Council meetings when requested by the Mayor or any member of the Council. Responsibilities include reviewing documents and procedures on behalf of the Town and advising the Council and Mayor on any number of issues from a legal perspective.

Grand Caverns

Located in the Town of Grottoes, Virginia, the Grand Caverns was first established in 1804 and began hosting tours in 1806. It became a National Natural Landmark in 1973 and in 2009 the Town of Grottoes took possession of the Caverns. The Grand Caverns is the oldest operating show cave in the United States and has over 200 rare "shield" formations inside. The Caverns are open for school field trip visits and encourage learning in the areas of biology, geology, and watersheds.

Figure: 13

Figure: 14

One program started in 2007 is called "Living Cave Living River" where the Grand Caverns pairs up with the Soil and Water Conservation District to implement the program using the Grand Caverns and the South River as educational resources for sixth grade students to pass Virginia standards of learning (SOL's). The program includes various stations for student experience such as a "cavern tour, an aquarium, an invertebrate lab, exhibits, water chemistry, alternative energy sources, golf, and maps and models."[36]

The park where Grand Caverns is located is open year round to persons of all ages. November through March tours are offered from 10 am until 4 pm, and April through October tours are offered 9am until 5pm. Tours are guided by staff members and are about 70 minutes in length. Guests of the Caverns are encouraged to take pictures; however, to maintain the natural preservation of the Caverns, touching the formations is prohibited. Due to the natural environment of the cave and the stairs within the cave, those who use wheelchairs or strollers are not permitted. However, "there are above ground areas that are accessible and a video cave tour is available at the gift shops at no charge for those who are unable to tour the cave."[37]

On a tour of Grand Caverns, a guest will go through different "rooms" and see different formations. Figure 15 is from the "Dante's Inferno," where tour guides tell a tale that this part of the Caverns is "haunted by evil spirits."

Figure: 15

[36] "Living Cave South River Exhibit." *Grand Caverns.* http://www.grandcaverns.com/v.php?pg=62
[37] "Grand Caverns Tour." *Grand Caverns.* http://www.grandcaverns.com/v.php?pg=66

Also located on the property is the Fountain Cave which offers the unique "Fountain Cave Adventure Tour," a 2-3 hour-long tour in the Fountain Cave, where there are opportunities for tourists to climb and crawl within the cave along the 1800's pathway. A person must be 15 years old or above to participate in fountain cave tours. There are no lights in this cave, and it has only recently opened (being closed to the public for almost 100 years), guest are given a helmet, kneepads, and gloves and are recommended to bring a flashlight. Tours are offered in the months of August, September, and October and are scheduled upon reservation.[38]

Figure: 16

In addition to the Caverns themselves, Grand Caverns Park offers several amenities for community members as well. The park has a 2.5-mile hiking and biking trail for visitors and stocked trout stream for fishing. There is also a picnic area for visitors, as well as an option to rent the vast picnic shelter for larger parties and gatherings. Admission into the pool located at the park and playing on the mini golf course is a great option for a family outing. The pool is opened to the community from Memorial Day to Labor Day, and prices of admission vary from individual, family, and seasonal passes.[39]

Mountain View Park

Mountain View Park is the Town park in Grottoes, located at 1100 20th Street, Grottoes, Virginia. The park houses a wide variety of amenities such as a fishing pond, a 1.4-mile trail for hiking/biking/walking, playground, tennis and volleyball courts, a driving range, and picnic shelter areas. The park attracts those interested in bird watching and wildlife. The South River that adjoins with the park has many bird attractions, such as great blue and green herons, belted kingfishers, and wood ducks. Along the more open part of the trails birds such as the eastern kingbird, indigo bunting, and eastern bluebird, are species of birds that can be spotted with a careful eye.

Town Hall

Figure: 18

The Town Hall is located at 601 Dogwood Avenue and features a Veteran's Memorial and Walk of Honor at the entrance. Residents can make utility payments, tax payments, obtain zoning permits and business licenses, set-up water/sewer accounts or obtain general information at the Town Hall. In addition, the building houses the Town of Grottoes Police Department, the Grottoes Branch of the Massanutten Regional Library, and a community room that is available to rent for events. The Town of Grottoes has a Facebook page to communicate upcoming events in the Town, reach out to community members, advertise the Grand Caverns, and more.

[38] "Grand Caverns Tour." *Grand Caverns.* http://www.grandcaverns.com/v.php?pg=66
[39] "Park Amenities." *Grand Caverns. http://www.grandcaverns.com/v.php?pg=15*

Grottoes Branch Library

Figure: 19
Source: Jack Slye photographer

The Town of Grottoes branch of the Massanutten Regional Library is located inside Town Hall at 601 Dogwood Avenue. Other branches include Bridgewater, Broadway, Elkton, Harrisonburg, Luray, and Shenandoah. Membership to the library is free for citizens of the Town of Grottoes with proof of county or Town residency and a photo ID. Members have access to all materials available in the library and at any of the additional branches. Members can check out material for two-week periods at a time and may renew materials twice. Overdue books are 5 cents per day and DVDS are $1.00 per day that it is overdue. The library offers many services, such as free computer use for members and access to online research databases, such as ProQuest, Newsbank, Heritage Quest Online, etc. There is also "Books by Mail" free service for homebound, elderly, or disabled patron of the library, a collection of local history and genealogy, notary services, microfilm, magazines and newspapers, reference services, and faxing. Community groups and local businesses can rent meeting rooms (with a charge). The library is staffed by one full-time and one part-time employee and is open from 1 to 6pm, Monday through Friday. Grottoes Branch Library also hosts programs for kids including Fantastic Family Fun, Crafty Kids, and LEGO Club. For adults, the library hosts a monthly book discussion.[40]

[40] "Grottoes Branch Library." *Massanutten Regional Library*. Massanutten Regional Library, 2013. Web. 18 Oct. 2013. <http://www.mrlib.org/LocationsHours/GrottoesBranchLibrary.aspx>; "Massanutten Regional Library." Brochure. mrlib.org.

Grottoes Volunteer Fire Department

The Grottoes Volunteer Fire Department (GVFD) was established in 1948, and is located at 109 3rd Street in the Town of Grottoes. The department responds to over 700 fire and medical calls per year in both Rockingham and Augusta Counties. In 2013, Grottoes Volunteer Fire Department was awarded the Outstanding EMS Agency designation by the Central Shenandoah Emergency Medical Services Council and was recognized for their excellent average response time. GVFD prides itself on its mantra of: "professionalism has nothing to do with a pay check, but instead on how you conduct yourself on calls." GVFD is also very involved in the community, and because the Town of Grottoes is small, the department is able to reach out to community members and host and sponsor community events. The department hosts an annual fireman's lawn party, along with Christmas, Easter, and Halloween events. In addition, GVFD is happy to provide tours of the fire station or attend birthday parties.[41]

Figure: 20

Grottoes Police Department

Grottoes Police Department is located inside the Town Hall at 601 Dogwood Avenue. Comprised of a Police Chief, Sergeant, four full-time officers and five part-time officers the department operates within the Town limits and a one-mile radius outside. Grottoes Police Department engages with the community every year through Chief Charlie's Kid's Fish Day held at Mountain View Park. Community members donate food, gifts, money, and time to make the event possible every year. Children can fish, visit a petting zoo, look at the Fire and Rescue vehicles, win prizes, and spend the day with their families, free of charge.[42]

Figure: 21

Figure: 22

[41] "2013 Outstanding EMS Agency Winner." *Central Shenandoah EMS Council*. CSEMS, 2013. Web. 19 Oct. 2013. <http://www.csems.org/agencies/awards/outstanding-ems-agency/grottoes2013/>.

[42] "Welcome to Law Enforcement Publications." *Law Enforcement Publications*. Law Enforcement Publications, 2013. Web. 18 Oct. 2013. <https://lepcalendars.com/>.

Grottoes Police Department

Figure: 23

Grottoes Rescue Squad

Figure: 24

Grottoes Rescue Squad, located at 805 August Avenue in the Town of Grottoes, was first established in 1967. The Rescue Squad is a volunteer organization that provides basic and advanced medical care for the citizens of the Town of Grottoes, and in Rockingham and Augusta Counties. There are three types of volunteer memberships: Active, support, and non-EMS. The rescue squad will pay for emergency medical training classes for those volunteers that commit to one year with the organization. Active members are required to give 32 hours of duty a month, as well as attending business meetings and training drills. Active members can also vote at business meetings and hold offices within the organization. Support members are required 8 hours of duty a month and attend business meetings and training drills as well. Non-EMS members assist in fundraisers and serve on committees as well as attend monthly business meetings.[43]

Trash and Recycling

Curbside trash pickup is manditory to Grottoes residents on a weekly basis and billed with the household's water and sewer bill. Residents have access to the Rockingham County Recycle Center located at 1005 20th Street in Grottoes. The Recycle Center accepts glass containers, aluminum cans, newspapers, magazines, telephone books, cardboard, plastic (with a marked number on base), plastic bags, ferrous metal, household batteries, used motor oil, steel and bi-metal cans, washing machines and dryers, and shoes, purses, wallets, belts, hats, and backpacks. Next to the recycle center is also a dumpsite for grass clippings and branches. The Town vacuums any leaves raked to the edge of the road.[44]

[43] "Grottoes Rescue Squad Inc." *Grottoes Rescue Squad*. Grottoes Rescue Squad Inc., 31 Aug. 2013. Web. 20 Oct. 2013. <http://www.rescue20.com/home.html>.
[44] "Town of Grottoes – Home" *Town of Grottoes - Home*. The Town of Grottoes, VA, 2013. Web. 14 Oct. 2013. <http://www.ci.grottoes.va.us/>.

Water and Sewer

Water and sewer service can be activated at an existing connection point by completing an application and paying a refundable deposit. For new residential or commercial water and sewer connections, residents are responsible for the cost to install the service lines. In addition, a connection fee will need to be paid to the Town. The 2015 Annual Drinking Water Quality Report of the Town of Grottoes is a public document that is designed to provide community members information about the quality of the drinking water. Drinking water in the Town of Grottoes is constantly monitored according to Federal and State Regulations for a variety of contaminants. In 2015, no violations were found.[45]

[45] "2015 Annual Drinking Water Quality Report Town of Grottoes." *The Town of Grottoes*. http://www.ci.grottoes.va.us/v.php?pg=35

Section 3.4: Education

Rockingham County Public Schools (RCPS) include 15 elementary schools, 4 middle schools, and 4 high schools. There is also a governor's school, a technical center, and an alternative education center. In this public school system, there are approximately 11,400 students enrolled and 1,850 full-time employees. Rockingham County Public Schools main office is located at 100 Mount Clinton Pike Harrisonburg, Virginia, about 16 miles outside of Grottoes. Students of Grottoes attend South River Elementary, Montevideo Middle School, and Spotswood High School. However, South River Elementary School is the only one actually located in the Town of Grottoes.[46]

Figure: 25

South River Elementary School

South River Elementary School (SRES) is located at 2101 Elm Avenue, Grottoes Virginia, a few miles from the national landmark the Grand Caverns, and is the only local school in the Town of Grottoes. South River prides itself on its three main rules and expectations for students to follow: To be safe, to be kind, and to be responsible. The school's vision is to create a positive educational environment and for each student to become a life-long learner. The elementary school first opened in 1994 in order to consolidate the two schools at Port Republic and Grottoes to make one central school. A diverse and well-trained staff teaches grades pre-kindergarten through fifth grade. South River offers several programs such as Special Education and English as a Second Language. South River is a Title I school of Virginia, which means that the school is provided financial assistance to ensure that children from families of low income are able to meet state academic standards. Title I provides funds to pay teachers, for teaching materials, parent involvement activities, and training for teachers. In the 2011-2012 school year, South River received the *Title I Highly Distinguished* honor, awarded based on the students exceeding state and federal accountability benchmarks and achieving average scores on the Virginia Standards of Learning tests in English and Math. Moreover, South River was recognized as a *National Blue Ribbon School* in 2012, based on overall high level of performance and improvements of students. South River is an accommodating school that values education and strives to engage and improve learning skills of its students. Upon graduation from South River, students attend Montevideo Middle School and then onto Spotswood High School.[47]

Figure: 26

[46] "About RCPS." *Rockingham County Public Schools*. Web. 19 Oct. 2013. <http://www.rockingham.k12.va.us/aboutRCPS.html>.
[47] "SRES History." *South River Elementary School*. SRS Solutions 2013. Web. 19 Oct. 2013. <http://blogs.rockingham.k12.va.us/sres/>; "Title I." *Rockingham County Public Schools*. 2013. Web. 19 Oct. 2013. <http://blogs.rockingham.k12.va.us/title1/>

Montevideo Middle School

Montevideo Middle School's (MMS) mission is to motivate students to believe, achieve, and succeed. MMS is located at 7648 McGaheysville Road Penn Laird, Virginia and is about 10 miles outside of the Town of Grottoes. The school capacitates around 620 students and teaches grades sixth through eighth. MMS offers the gifted and talented program, a special education program, a vocational/technical curriculum, and English as a Second Language. The school has an arboretum, greenhouse, baseball diamond, football and soccer field, track, as well as an outdoor barbeque facility. The library at MMS offers a pleasant space for students to learn, study, read, research, and more. MMS has access to a variety of databases and trained librarians to help guide students in developing adequate research skills for various projects during the year. MMS also offers different afterschool activities such as band, volleyball, cross-country, choir, forensics, and so forth. Every year the eighth grade class takes a field trip to Baltimore's inner harbor to visit the National Aquarium and see the sights of Baltimore. MMS offers unique programs such as "Challenge," which is a club that engages students within each grade, for example some students created a "History of Flight Museum" using PowerPoint and digital photos and invited teachers and other students to visit and learn. MMS also has a peer-mentoring program where staff and students work together building relationships to improve the community and their own citizenry. The many programs offered MMS encourage students to get involved and enjoy their education.[48]

Figure: 27

Spotswood High School

Spotswood High School (SHS) is located at 368 Blazer Drive, Penn Laird, Virginia and is about 10 miles outside of the Town of Grottoes and about a mile from Montevideo Middle School (its feeder school). The goal of SHS is: "To provide a safe learning environment and provide diverse learning experiences for students to acquire the knowledge, skills, and character needed for academic success and responsible, productive citizenship in the 21st century." In 2013, *U.S News* ranked SHS 42 in the "Virginia's Best High Schools."[49]

Figure: 28

The school officially opened teaching grades 10 through 12 in 1980, but in 1984 it included 9th grade as well. Spotswood was renovated in 1995 to accommodate for the growing student population, putting in a new gymnasium, 28

[48] "Montevideo Middle School." *Trulia*. 2013. Web. 19 Oct. 2013. <http://www.trulia.com/schools/VA-Penn_Laird/Montevideo_Middle_School/>; "About MMS." *Montevideo Middle School*. World Press 2013. Web. 19 Oct. 2013. <http://blogs.rockingham.k12.va.us/mms/about/>

[49] "Best High Schools." *U.S News*. http://www.usnews.com/education/best-high-schools.

classrooms, and other facility improvements. In 2010, East Rockingham High School opened in Elkton, Virginia, allowing SHS to decrease enrollment to around 850 students, putting the high school in the bottom 5 "smaller AA school." This allowed for smaller class sizes where staff can more easily engage student learning.

The high school offers a wide variety of activities for students to participate in from sports to after school clubs. These activities include cheerleading, cross country, football, gold, volleyball (Junior Varsity and Varsity), Future Business Leaders of America (FBLA), Future Educators Association (FEA), band, Environmental Science Club, Student Council Association (SCA), National Honor Society, DECA, Spanish, French, etc. A unique program offered at Spotswood is the Olweus Program, a nation-wide, anti-bullying campaign in which SHS received a $10,000 grant from Virginia Department of Health. The committee to implement the program is made up of teachers, students, administrators, and parents. A student group called "Students Taking a Responsible Stand" or STARS is the ambassadors for SHS and work with the committee to help make decisions and find ways to implement the anti-bullying program. This is one of many great leadership programs offered at SHS that help students stay involved and on track to graduate. In addition, college preparatory courses are offered as well as honors and advanced placement classes. SHS fosters a positive learning environment, with access to guidance counselors and trained faculty, motivating students to achieve academic success and graduate with a high school diploma.[50]

Higher Education

The Town of Grottoes is also in the vicinity of various state and private universities, such as James Madison University, Bridgewater College, Mary Baldwin College, and Eastern Mennonite University, all of which are located within a 20 miles radius of Grottoes. In addition to schools of higher learning within the vicinity of the Town of Grottoes there are also technical schools and community colleges.

James Madison University

Figure: 29

James Madison University (JMU) is located in Harrisonburg, about 13 miles outside of the Town of Grottoes. Founded in 1908, originally JMU was an all-girls Teachers College, but in 1946 the University invited men to enroll. JMU offers 115 degrees within the bachelor's, educational, master's, and doctoral programs. The colleges within the university are: Arts and Letters, Business, Education, Integrated Science and Engineering, Health and Behavioral Sciences, Visual and Performing Arts, the Graduate School, and Outreach and Engagement. These programs attract promising students from across the country to learn, develop, and prepare to become engaged citizens in society. As of the fall 2012, the total enrollment was 19,927 students with 18,107 undergraduate and 1,820 graduate students. JMU is also known for its high retention rate of first year students, with about 91% retention. The student to faculty ratio (varying each year) is 16 to 1, and each professor is required to offer office hours, allowing students the chance to get to know and work alongside their instructors. JMU offers a wide variety of activities and programs for students to

[50] "School Profile." *Spotswood High School*. Web Press 2013. Web. 19 Oct. 2013. <http://blogs.rockingham.k12.va.us/shs/guidance/school-profile/>.

participate in, such as Greek Life, Speech Team, Student Ambassadors, Alternative Break Program, club sports, Invisible Children, Students Helping Honduras, Student Government, Safe Rides, Big Brothers Big Sisters, the Marching Royal Dukes, and more. The College of Business ranked 11th among public institutions and 29th among all undergraduate best business schools and *U.S. News & World Report* ranked JMU number 2 in 2013 as "Best Colleges" among schools in the South.[51]

Eastern Mennonite University

Eastern Mennonite University (EMU), founded in 1917, is a private liberal arts university located in Harrisonburg, Virginia and is primarily based on a Mennonite Anabaptist perspective of learning and teaching. However, more than half of the students that attend EMU do not come from Mennonite backgrounds (44% do). The school is small and currently has 1,500 students enrolled and the student to faculty ration is 10:1. EMU prides itself on its core values of: Peace building, global community and cultural awareness, sustainability and stewardship, faith and fellowship, and service to others. Students can earn a bachelor of arts or a bachelor of science in a variety of fields, such as art, biblical studies, accounting, communication, chemistry, education, English, health, physical education, and so on. EMU also offers pre-professional programs like pre-dental, pre-law, pre-pharmacy, pre-engineering, pre-veterinary, and more. EMU's seminary is well known and trains students to prepare for future ministry and leadership roles in the church and beyond. There is a wide variety of organizations to be engaged in as a student of EMU, such as Student Government, Third Culture Kids Club, Peace Fellowship, WeatherVane Student Newspaper, Cycling Club, and more.[52]

Figure: 30

Mary Baldwin College

Mary Baldwin College (MBC), founded in 1842, is a private, liberal arts women's college located in Staunton, Virginia. When it was established in 1842, it was for the purpose of a Female Seminary, on the basis that women have the right to an education as men do. The College emphasizes global leadership and citizenship to motivate and inspire women to be future leaders in society. As of 2012, there were 788 undergraduate students and student faculty ratio of 12 to 1. There are 291 graduate women *and* men.

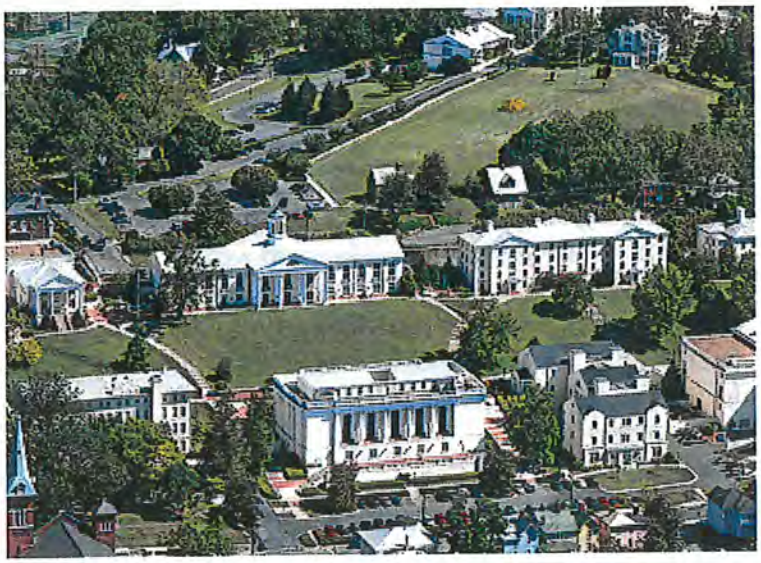


Figure: 31

Mary Baldwin offers a variety of unique programs to students. The Virginia Women's Institute for Leadership is the nation's only all-female cadet corps, and was established to satisfy federal non-discrimination for women, because they could not attend the all-male Virginia Military Institute (VMI). The Program for the Exceptionally Gifted (PEG) is for students between 13-15 years old who can skip all or some high school and pursue an undergraduate degree. As of fall

[51] "About JMU." *James Madison University*. http://www.jmu.edu/about/rankings-and-recognitions.shtml
[52] "About EMS." *Eastern Mennonite University*. http://www.emu.edu

2013, there were 70 students under the PEG program from across the country and globally. Students can pursue a master's degree in the Master of Fine Arts in Shakespeare and Performance; Mary Baldwin is partnered with the internationally acclaimed American Shakespeare Center, and students pursuing a Master of Fine Arts have the opportunity to learn, direct, and perform Shakespeare's plays. Students have the option in majoring in a variety of subjects, such as math, history, business, leadership studies, music, peacemaking and conflict resolution, philosophy, and so on.

There is a vibrant student culture at Mary Baldwin, where students participate in a number of historical traditions. Such traditions like, the annual Apple Day, which promotes community service and engaging in school clubs and the tradition known as "Da & Da" when at the end of each school year the two dog statues who guard the front of the administration building, are painted by senior art students. Many more traditions exist at Mary Baldwin, allowing students and alumni to cherish and appreciate the history of the school.[53]

Bridgewater College

Bridgewater College, first established in 1880, is a private liberal arts college, located in Bridgewater, Virginia. It is Bridgewater's mission to provide a "challenging and supportive learning community that fosters the growth of its students and empowers and motivates them to live educated, intelligent, healthy, purposeful, and ethical lives." The College is based and associated with the Church of the Brethren, a non-creedal Christian denomination. The college offers more than 60 majors and minors in the Bachelor of Arts and a Bachelor of Science, as well as pre-professional and dual degrees. There are about 1,800 full time enrolled students at BC and there is a 14 to 1 student-faculty ratio. Students can get involved in activities such as intramural sports, music ensembles, clubs and organizations on campus. Some clubs include French Club, Equestrian Club, Habitat for Humanity, Pre-Law Society, Concert Choir, Honor Societies, and so on. There are many services offered to students to help maintain academic excellence as well as preparing for life after college, such as the Career Services, Academic Support Center, Writing Center, Mediation and Judicial Services, etc. One of the unique aspects of Bridgewater is it's strive to create a more diverse educational environment as well as hosting programs to open up diversity on campus. For example, there is a Bridgewater College Diversity Committee that encourages a diverse and inclusive community and focuses on a variety of diverse backgrounds.[54]

Figure: 32

Technical Schools and Community Colleges

The Massanutten Technical Center (MTC) is an institution offered to high school and adult students serving as a joint career and education center. MTC is located at 325 Pleasant Valley Road Harrisonburg, Virginia, making it a central location for Grottoes high school students to attend dual enrollment courses.

Blue Ridge Community College (BRCC) was established in 1967 and is an accredited community college by the Southern Association of Colleges and Schools Commission on Colleges. Courses are offered in the fall and spring each year. BRCC is located about 7 miles from Grottoes on One College Lane, Weyers Cave, Virginia.

[53] "About MBC." *Mary Baldwin College. http://www.mbc.edu/about/*
[54] "Bridgewater College." *Bridgewater College*. http://www.bridgewater.edu

Another local college close to Grottoes is the National College, established in 1989 and is located at 1515 Country Club Road, Harrisonburg, Virginia. The school serves to help individuals further their education and career paths with programs in business, healthcare, and computer technology. The National College campus in Harrisonburg is part of a larger institution which campuses are located across the United States.

Section 4: Transportation

Section 4.1: Introduction and Previous Transportation Studies

This plan is the result of a study that evaluated the transportation system in the Town of Grottoes. This portion of the comprehensive plan was constructed to comply with Virginia law § 15.2-2223, which states that every locality shall develop a transportation plan consistent with the Commonwealth Transportation Board's Statewide Transportation Plan. The recommendations contained in the following report aim to satisfy existing and future transportation needs that impact the Town of Grottoes to include all relevant modes of transportation. The Virginia Department of Transportation (VDOT) should use this report when evaluating transportation projects that affect the transportation network in and around the Town of Grottoes.

In accordance with Virginia Transportation Plans, previous local transportation studies as well as trends in population growth, traffic data and land use; no major improvements or additions are recommended for the transportation infrastructure within the Town of Grottoes. Instead, recommendations focus on continuing and increasing multimodal transportation initiatives to support local cultural and economic objectives.

In February of 2002, the Town of Grottoes adopted the Grottoes 2020 Transportation Plan. The study collected data on traffic, structural conditions and crash frequencies. Recommended improvements from this study were broken down into three phases. Projects focused on sidewalk continuity (Phase One), turn lane additions to major thoroughfares (Phase Two) and a road extension east of the Town to alleviate navigation difficulties for tractor trailers (Phase Three). Currently, only Phase one of the 2020 Transportation Plan has been carried out.

The Virginia Department of Transportation's Six-Year Improvement Program only lists one project within the Grottoes jurisdiction. The scope of this project addresses sidewalk reconstruction from Aspen Avenue to the western boundaries of the Town. Total costs amount to $978 and construction is scheduled to be completed by FY 2018.

Section 4.2: Functional Classification System

Commencing with the Federal Aid Act of 1921, the Federal Functional Classification (FC) is a system that groups roads into categories according to the service the road is intended to provide. This system allows transportation planners to analyze travel throughout a thoroughfare system and determine recommendations to improve efficiency. The Virginia Department of Transportation (VDOT) is charged with maintaining the commonwealth's FC System. VDOT uses the model to determine minimum standards, design, and the eligibility of federal transportation funds, road features, intervention strategies and various data collection initiatives. This report, in conjunction with VDOT, uses the composite index system to review the Grottoes thoroughfare system. Factors used in the index are volume percentile, primary system or not, posted speed and number of lanes. A higher score suggests a higher functional class.

FC usage is based on two functions: mobility and accessibility. Mobility represents the ability of traffic to pass through a defined area in a reasonable amount of time. Accessibility is the capability to provide access to land use activities within a defined area. The Federal Highway Administration (FHWA) has redefined the FC system to reflect decennial census data, match federal guidelines, and create a user-friendly guide for planning and development. The new functional classification is as follows:

Interstate

Desinged and constructed for ong distance travel and little interurption with high levels of mobility and limited access to anything but major urban areas.

Other Freeways and Expressways

Similar to interstates; however, have directional barriers. Access and egress points are limited indirect land access sucha as on-and off-ramp locations, intended to mamimize mobility.

Other Principal Arterial

Serve concentrated urbanized areas as well as provide mobility through rural areas allowing access to some abutting land uses.

Minor Arterial

Provide serivce for moderate distances, serving smaller geographic areas and connecting to higher links within the arterial system.

Major Collector

Serve primarily intra-county travel with predominatley shorter travel distances. These roads have lower connecting driveway densities than minor collectors and are longer in length.

Minor Collector

Have lower speed limits than Major Collectors and are spaced at shorter lenghths with lower annual average traffic volumes and less travel lanes.

Local

Account for the largest percentage of roadways in terms of miles across the U.S. and yet are not intended for lond disntace travel. Local roads are predominatley design to discourage through traffic using lower speed limits.

Figure: 33

The table below provides insight as to the impact of functional classification changes within the Town of Grottoes. Once the federal functional classification update is complete, portions of 20th, Elm Avenue, Dogwood Avenue, and Aspen Avenue will be upgraded from a local route to a minor collector. These changes will further reflect the access these roads provide to major traffic generators as well as the school on the northern portion of the Town's boundaries. These changes are specific to routes within the Town of Grottoes and do not extend beyond the limits of Grottoes.

Ad-Hoc Federal Functional Classification Changes							
Conversion	Local Name of Route	Termini of Route	Change Beyond Town Limits	Existing FC	Proposed Federal Functional Classification	Justification	HTRIS Composite Index
Upgrade	20th Street	Forest Avenue East to Dogwood Avenue	No	Local	Minor Collector	Roadway provides access to major traffic generator-Access to school	8.4
Upgrade	Elm Avenue	20th Street North to School Property	No	Local	Minor Collector	Roadway provides access to major traffic generator-Access to school	8.4
Upgrade	Dogwood Avenue	20th Street North to School Property	No	Local	Minor Collector	Roadway provides access to major traffic generator-Access to school	8.4
Upgrade	Aspen Avenue	Cary Street North to 6th Street	No	Local	Minor Collector	Up or Down to improve continuity in FC network-Match adjacent	7.5
Downgrade	6th Street	Dogwood East to Aspen Avenue	No	Major Collector	Minor Collector	Up or Down to improve continuity in FC network-Volume is reasonable, however downgrade to form network hierarchy	13.01
Downgrade	Dogwood Avenue	3rd Street South to Cosby Mill Lane (Augusta County)	Yes	Major Collector	Minor Collector	Up or Down to improve continuity in FC network-Downgrade back to VA-256 from Town boundary	13.24

Table: 5

Two roads, 6th Street as well as Dogwood Avenue will be downgraded from major collectors to minor collectors to reflect the new network hierarchy within the updated functional classification system. The downgrade of Dogwood Avenue from 3rd Street South to Cosby Mill Lane extends into Augusta County.

Section 4.3: Traffic

A 2012 Traffic Analysis within the region provides Average Annual Daily Traffic (AADT) counts as well as vehicle estimates relative to the volume of traffic for routes within the Town. AADT counts represent the average volume of traffic on any day within a specified route over the period of one year. However, estimates are derived using multiple sampling methods. In Grottoes, a Factored Short Term Traffic Count was most commonly used to collect data on Town routes. Data was not collected continuously to represent an actual average, but rather estimated using a specific data collection window during 2012.

Route	Alias	Maintenance Jurisdiction	Link Length	Start Label	End Label	AADT
VA 256	3rd St	Rockingham County	0.42	Rockingham County Line	Dogwood Ave	4400
VA 256	3rd St	Rockingham County	0.37	Dogwood Ave	Aspen Ave	4500
VA 256	3rd St	Rockingham County	0.13	Aspen Ave	US 340 East Side Hwy	3800
US 340	East Side Hwy	Augusta County	0.05	SCL Grottoes	Rockingham County Line	5200
US 340	East Side Hwy	Rockingham County	0.46	Augusta County Line	Cary St	5100
US 340	East Side Hwy	Rockingham County	0.47	Cary St	NCL Grottoes	5500
228-2	Cary St	Town of Grottoes	0.23	East Side Hwy	ECL Grottoes	830
228-4	2nd St	Town of Grottoes	0.13	Park Ave	US 340	40
228-987	Dogwood Ave	Town of Grottoes	0.39	SCL Grottoes	6Th St	2200
228-987	Dogwood Ave	Town of Grottoes	0.94	6th St	NCL Grottoes	2900
228-2955	6th St	Town of Grottoes	0.38	Dogwood Ave	Aspen St	1500
228-0	11th St	Town of Grottoes	0.00	Forest Ave	Dogwood Ave	150
228-0	9th St	Town of Grottoes	0.00	Elm Ave	Dogwood Ave	50

Table: 6

The highest AADT counts are located on VA 256 from the Rockingham County Line to Dogwood Avenue, Aspen Avenue and East Side Highway; and also on US 340 from the Augusta County Line to Cary Street. By far, the majority of the traffic volume within the Grottoes Thoroughfare System consists of motorcycles, passenger cars, vans and pickup trucks with two or four tires. On VA 256 and US 340, tractor trailers average 3-4% of AADT counts.

Section 4.4: Maintenance, Rail, and Air Service

Maintenance

The Town of Grottoes is unique in that since 1984 the Town has assumed the maintenance of its streets with the exception of Route 256 from Route 340 to the western corporation limits; and Route 340 from the northern corporation limits to the southern corporation limits.

Rail

An essential catalyst to rapid growth of the Town, what used to be the Shenandoah Valley Railroad served as an essential lifeline to the wider community. Now Norfolk Southern, the line continues to move goods through the town on behalf of major local employers. Preservation and safety surrounding this line should continue to be a major consideration when improving the transportation network.

Air Service

Shenandoah Valley Regional Airport (SHD) is approximately 5 miles west of the Town of Grottoes, serving as the Region's primary commercial service airport. SHD also provides extensive general aviation services and hosts major employers such as Dynamic Aviation and Blue Ridge Aviation. SHD serves thousands of passengers each year, and currently hosts United Airlines which offers direct flight to Washington Dulles International (IUAD) multiple times a day.

Section 4.5: Needs Assessment and Recommendations

Needs Assessment

For its size, the Town of Grottoes has experienced moderate growth since the beginning of the twentieth century with relatively accelerated growth since the 1990s. The population grew by over 45% from 1990 to 2000, and another 26% from 2000 to 2010. Within this time, Grottoes exhibited similar growth in housing units. Should the Town continue to grow at this rate in the future, some roadway improvement and connections will be necessary to maintain sufficient levels of service. Phase Two and Phase Three of the Town of Grottoes 2020 Transportation Plan identify turn lane improvements at 3rd street and Dogwood as well as an additional connection to U.S. 340 on the eastern side of corporate limits that would greatly increase the flow of traffic in and out of the southern and eastern portions of the Town.

The citizen survey conducted in 2013 assessed citizen satisfaction with the Town's transportation network. Improvements to automobile oriented transit issues were not cited as the top priorities for the Town of Grottoes. Less than 10% of respondents stated they were dissatisfied with transportation issues in the Town. Attracting businesses, enhancing visual appearances and increasing recreational opportunities were among the top three priorities. Therefore, recommendations focus on alternative transportation modes as well as design standards to position Grottoes as an attractive place to live, visit, and conduct business.

Recommendations

Focus transportation Improvements on community development
Transportation projects within the Town should emphasize accessibility and place making. Progressive transportation initiatives focusing on sustainable development and valuing streets as places will position the Town as a destination, not just a thoroughfare system.

Utilize state and federal financing opportunities to continue to encourage alternative modes of transportation (walking, bicycling), advancing sidewalk and pathway continuity to strategic town assets.

Utilize sharrows (roadways which are shared with cyclists) to invite cyclists to explore the town, improve road safety, and cut costs on conventional bike lanes. Shared road ways should include Dogwood, 3rd Street as well as U.S. 340. Speed limits should be reassessed, as cyclists should feel comfortable traveling alongside vehicles.

- Install public bicycle facilities in Town Center as well as adjacent to publicly owned assets.
- Create and adopt design standards for sidewalks and pathways to include crosswalks, sidewalks, trails, pathways, bike lanes, medians, planting strips, curbs, and lighting.

Utilize landscaping techniques to further separate motorists from pedestrians and cyclists using sidewalks and trails.

Add and Update Signage
By way of U.S. 340, VA 250 connecting into Town Center; promote awareness of shared roadways, destinations, and facilities by updating signage to reflect the following:

- Bike Pathways
- Pedestrian intersections
- Golf Cart Crossings (Resolution Adopted 2014)
- Parking
- Tourist destinations

Improve Gateways

Gateways are used signify that travelers are transitioning into a unique place. Elements such as landscaping, signage, road design and various other physical landmarks can be used to urge motorists to explore the Town instead of just passing through. Using standardized design standards:

- Continue sidewalk construction and improvements on 3rd street from Dogwood east to U.S. 340. As one of the gateways to the Town, this corridor should be interpreted to users as an entrance to a destination.
- Utilize banners and landscaping techniques east of the bridge leading into Town on 3rd street to draw visitors into the center of Town, making this entrance one of the main focal points into Grottoes.

Roadway Improvements

The Town of Grottoes should continue with Phase Two and Three of the 2020 Transportation Plan while incorporating multimodal transportation efforts and standardized design standards whenever possible.

Phase Two: As turn lanes are constructed for Dogwood Avenue at the intersection of 3rd Street, pathway interruption across 3rd street should be minimized by using a crosswalk if foot traffic suggests a volume high enough to indicate safety concerns. During preliminary engineering stages, planters should be incorporated to separate automobile and pedestrian traffic adjacent to the sidewalk on Dogwood Avenue.

Phase Three: The extension of 3rd street to Browns Gap Road (663) would alleviate operational difficulty for the movement of goods in and out of Town. However, the intersection of Cary and 340 should be assessed to identify any right of way extensions and turn lane improvements that could ease maneuverability and supplement the construction of new roadway.

Section 5: Tourism and Economic Development

Section 5.1: Objectives and Goals

The following goals and objectives are specific areas wherein the Town of Grottoes shall aspire to grow and prosper as it relates to tourism and economic development.

Economic Development

- Strengthen the Town of Grottoes' existing economic base.
- Seek innovative ways to capitalize and expand tourism opportunities in Grottoes.
- Convert underutilized space into productive economic uses.

Promotion

- Market the Town of Grottoes unique qualities and assets to potential customers, investors, new businesses, and visitors
- Coordinate and organize special events and festivals to market key points of interest
- Raise overall awareness of Town's attractions, vibe, and scenery

Organization

- Build and sustain a strong relationship with Rockingham County
- Increase cooperation and consensus between all stakeholders to uphold Town mission and objectives
- Enhance the quality of life for the people who live, work and visit the Town of Grottoes

Design

- Create new signage and other marketing tools to capitalize on Town assets
- Encourage Town revitalization and support new construction and growth
- Commit to lifelong beautification throughout its borders

Parks and Recreation[55]

Mountain View Park

Fishing

River Boat Ramp

Walking Trail

Play Ground

Tennis

Horseshoe Pits

Volleyball Court

Driving Range

Picnic Shelters and Grills

Stage with Audio and Light System

Baseball Field

Town Hall Community Room

Grand Caverns Park

Gift Shop

Caverns Museum

Mini golf

Swimming Pool

Fishing

Walking Trails

Play Ground

Horseshoe Pits

Volleyball Court

Picnic Shelters and Grills

Stage with Audio

The Town Parks and Recreation amenities include a great variety of activities to the residents of Grottoes as well as visitors of the Town. The greatest attraction, Grand Caverns, attracts many outside visitors from all around the globe.

Figures: 33-35

[55] "Town of Grottoes - Home." *Town of Grottoes - Home*. N.p., n.d. Web. 07 Dec. 2013.

Civic and Recreational Opportunities
Fire Department
Rescue Squad
Planning Commission
Grottoes Community Little League
RCBL Grottoes Cardinals
Grand Caverns Kraken Swim Team
Miss Claire's Dance Class
Weaver's Karate
The Batting Cave
Grottoes Ruritan's

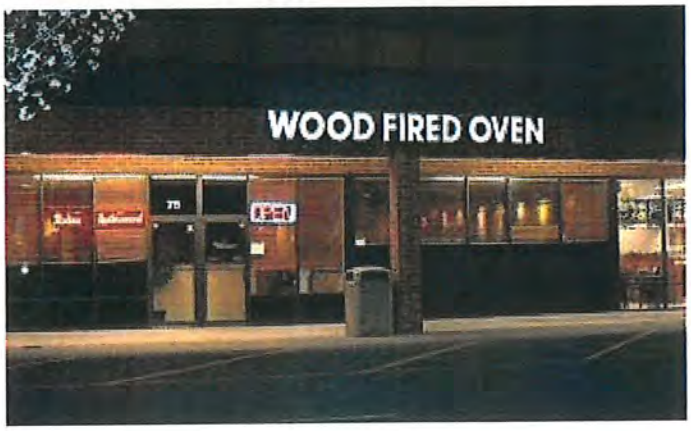
Figure: 36

The local government of the Town of Grottoes provides a many vital services. These services are particularly aimed at fulfilling the needs of residents of the Town.

Figure: 37

Restaurants[56]
Wood Fired Oven
Ciro's Flying Pizza
Shun Xing
Subway
Battarbee's Catering
Herby's
7-11

The Town of Grottoes possesses two different Italian restaurants, Chinese restaurant, one fast food restaurant, a home cooked restaurant with catering, and two convenience stores with prepared foods.



Figures: 38 and 39

[56] "Grottoes Restaurants." *Restaurants in Grottoes, Virginia with Reviews & Ratings*. N.p., n.d. Web. 07 Dec. 2013.

Section 5.3: Amenity Analysis

Amenity Information Positives

The Town of Grottoes website provides information about the Town's government services, emergency services, and department of public works services. The website has a direct link to the Grand Caverns website, to encourage tourism. Employment opportunities within the Town of Grottoes are available on the Town's website.

Amenity Information Areas for Improvement

There is a lack of information on the Grottoes website about Town services, and businesses which exist within the municipal. There is a link, which lists all local businesses, but there are no links to business websites, and there is no visual or descriptive representation of these businesses. In order for tourism and economic development of the Town of Grottoes to prosper, information about Town assets must be easy to find, organized, and attractive. From a tourism standpoint, the Town of Grottoes website is most often the first place individuals look when choosing to spend their leisurely time there. From an economic development standpoint, the website is also likely to be the first place business owners look when choosing whether or not to relocate. Currently, the website does not provide prospective visitors, or business owners, adequate information about the Town's assets.

There is also a lack of pictures on the Town's website. Pictures of Town amenities would give prospective visitors and business owners a more comprehensive idea of what Grottoes has to offer.

Beyond website issues, there is physically a lack of sufficient signage in the Town of Grottoes to highlight amenities present there.

Section 5.4: Best Practices

Location Quotients

A plan, which utilizes location quotients to measure the extent to which the contribution of one subgroup of economic actors to a regional economy is greater or lesser than the contribution of that subgroup to a larger reference economy, can be highly beneficial to the economic growth of small municipal. Location quotients could serve as a useful way to analyze the Town of Grottoes local economy and establish means for expansion of local industries. Location quotient calculators are easily utilized and accessed through the *Bureau of Labor Statistics* at http://www.bls.gov/cew/cewlq.htm.

Grant Opportunities

The Town of Grottoes could benefit from securing grants to aid in the expansion process. Grant opportunities for local government agencies can be further explored through resources such as http://www.grantspace.org/Resource/Government-Funders/Government-grants and http://www.grants.gov collaborating with Rockingham County's Economic and Tourism Department for grant writing could also be explored.

Vacant Property Analysis

Grottoes could immensely benefit from an analysis of vacant properties. One of the strengths Grottoes citizens expressed in the Economic Development focus group was the Town's "bedroom community" feel. Taking advantage of currently vacant properties would increase business in the Town without the added construction and physical expansion. This kind of analysis can be achieved, by looking at the results procured by the property analysis from the local assistance portion of the comprehensive plan and can be conducted more frequently through additional staffing of Grottoes Town Government.

Arts and Culture Promotion

In the Town of Grottoes focus group, residents indicated that the local festivals were both a Town strength and something they wished to expand.

Visions, Missions, and Objectives

Having a well-crafted vision statement that outlines prominent local values, while establishing a clear vision for the future economic and physical Town environment is essential. It may be worthwhile for the Town of Grottoes to use an extra staff member, economic development professional, student intern, or graduate assistant to come up with a clear set of goals and objectives to actively work on the Town's economic and tourism development.

Stakeholder Interviews

The Town of Grottoes, has commitment to regional values, and has utilized a few practical strategies for development that would be beneficial for the local economy. As was performed for the 2016 Comprehensive Plan, surveys should continue to be used as a tool for the town to focus on and realign town planning goals. Stakeholder interviews can also attempt to identify individuals with extensive knowledge of the town's history and current events, as well as businesses, civics, education, and government interests.

Technology Usage

The Town of Grottoes may benefit from a section dedicated to technology usage. Including a technology section in the Plan commits the Town to investing in technology in future development efforts while also establishing an objective to remain up to date in all of the major areas of focus. One such strategy could be improving technology in the Town to increase regional public-private partnerships.

Section 5.5: Recommendations

General Economic and Tourism Vitality

Based on results collected from a general opinion survey from residents of the Town of Grottoes, it has been found that about 75% of respondents would like to see more tourism in the Town[57]. In order to achieve greater tourism numbers, it is important that certain measures be taken in attracting outside visitors. A graphical representation of Grottoes resident opinions regarding tourism is shown here:

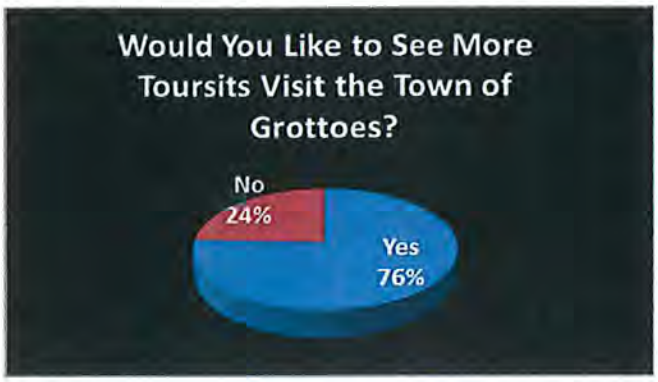


Figure: 41

In order to attract new visitors and increase tourism, Grottoes should have all local amenities including restaurants, services, retail shops, places of worship, government agencies, recreation, and businesses listed on the Town of Grottoes website in a logical organized manner.

The Town should pursue a business alliance wherein stakeholders who are directly involved in providing Grottoes amenities may meet and collaborate to strengthen the economic state of the Town. Linkage with Rockingham County Economic and Tourism Development office as well as pursuing historical markings and recognition of Grand Caverns.

More pictures, visuals, and or graphical representations should be displayed on the Town website. The list of businesses on the Town of Grottoes website should have links to business websites if available. There should be visuals to represent businesses, and descriptions if possible.

There should be more signage put up around the Town as well as on 81 South in order to highlight the Town of Grottoes' amenities.

Signage

There is currently a lack of sufficient signage for the Town of Grottoes. The manager of the Grand Caverns addressed sign issues off of I-81 Southbound. Off the exit, southbound, the attractions sign for the Town is currently blank. We recommend including the Grand Caverns on the attractions sign. This will provide potential tourists with sufficient information indicating the Grand Caverns location within the Town of Grottoes. This will also bring awareness of the Caverns to those traveling on the popular interstate. Effective signage remains a strong marketing tool and should especially be utilized on major interstates such as I-81. Once in the Town of Grottoes, smaller signs indicating the direction of Grand Caverns should help potential tourists located the site. The idea is to bring tourists to Grand Caverns in an easy and effective manner. Once at Grand Caverns, tourists will then explore many other Town assets and points of interest.

Website modification

Grand Caverns is a major stakeholder in economic development and tourism in Grottoes. It is what set Grottoes apart from other small towns in the State of Virginia; however, it is not the only part of the Town worth promoting. The Town website provides useful links and information to prospective visitors of Grand Caverns; however, the website fails to provide adequate information for many other key Town assets and amenities. A flourishing Town must possess several key revenue streams from various sources amongst the Town environment. Part III accurately describes a full listing of amenities and assets within the Town, yet the Town fails to utilize present technology such as the Town website to

[57] PUAD 560 class. James Madison University Grottoes Resident Opinion Survey: Ashliegh Krick, AJ Good, Alan Jones

promote all them in an organized readable manner. Highlighting festivals and special events within the Town of Grottoes on the website is an easy and cost efficient way to promote awareness.

The Shenandoah Valley has a number of great resources to promote regional tourism. The Shenandoah Valley Travel Association and the Virginia Economic Development Partnership have produced useful websites with information of the regions, tourist destinations, and special events. The Rockingham County Tourism Department also works with other counties to promote tourism. The Town of Grottoes would benefit immensely from improving relations with these groups and taking advantage of the centralized and economically efficient marketing strategies.

The Town of Grottoes signage advertising Grand Caverns is minimal and insufficient. Although onsite signage at Grand Caverns is sufficient, visitors will likely have extreme difficulty locating the park if navigating based on road signs as there are very few. Currently, it is nearly impossible to find Grand Caverns without the use of an electronic navigation device. Grand Caverns should strategically revamp advertisement street and highway signage to ideal locations such as exits on I-81, exit ramps, and at major intersections throughout Grottoes as well as bordering Towns. Key placement of signs promoting various points of interest within Grottoes will likely enhance Town tourism and prove impetus toward economic development.

Marketing

The Shenandoah Valley has a number of great resources to promote regional tourism. The Shenandoah Valley Travel Association and the Virginia Economic Development Partnership have produced useful websites with information of the regions tourist destinations and seasonal events. The Town of Grottoes would benefit immensely from improving relations with these two groups, and taking advantage of the centralized and economically efficient marketing strategies. Additionally, refer to the signage section, because efficient signage is synonymous with effective marketing. Key placement of signs promoting various points of interest within the Town of Grottoes will likely enhance Town tourism and prove impetus for economic development.

Mobile Revolution

Travelers and visitors of the Grand Caverns should take advantage of their mobile devices, such as smartphones and tablets. Mobile devices are often used for tourism. Visitors to Grottoes can utilize their mobile devices to download applications that give detailed information about specific points of interest and attractions within Grottoes Town borders. Additionally, upon arrival to the Town of Grottoes, visitors will search for things to do nearby including Town activities, events, and dining.[58] It is recommended to create a "QR Code" (Quick Response Code) associated with the Grand Caverns. Tourists and visitors can simply scan a bar code found on the website, brochure, or other advertisement materials to capture desired information about the Grand Caverns and other Town attractions. Moreover, it is recommended to take full advantage of social media websites such as Facebook and Twitter to stay connected and receive news updates. Special events can be broadcasted through these sites. Currently the Grand Caverns does not have a Twitter, and there is no Facebook link on the Caverns' website.[59] It would be recommended that these accounts be implemented and maintained on a regular basis to maximize social media outreach.

Grand Caverns Gift Shop and Online Expansion

We also recommend allowing visitors the ability to purchase tickets online. Tourists can print their Grand Caverns admission ticket from the comfort of their home or office and remove the need to purchase tickets before the tour time. Also, an online Grand Caverns gift shop accessible to visitors and tourists will expand and increase sales. A complete list of items sold in the gift shop should be made available to the public. Currently only stones, t-shirts, and educational books are listed on their website. However, many unique souvenirs could expand their product base. The Grand Caverns could also benefit from adding more photos online of the gift shop itself and the specific retail products they sell.

[58] "Media and Public Relations." » *Tourism Boost*. N.p., n.d. Web. 07 Dec. 2013.
[59] "Town of Grottoes - Grand Caverns." *Town of Grottoes - Grand Caverns*. N.p., n.d. Web. 07 Dec. 2013.

Email Marketing

Email marketing can be a powerful tool for any small business. Grand Caverns should acquire potential visitor's email addresses either through an on-line submission from the Cavern's website, Grottoes website, or visitor log at Grand Caverns Park. Below are ten tips for email marketing success:[60]

1. Send strategic targeted messages
2. Ask targeted questions to prospective and previous visitors to gain useful feedback and recommendations.
3. Tell stories about Grand Caverns
4. Always send out alerts for upcoming events and activities
5. Offer exclusive deals
6. Create trust in your customers
7. Use images that are visually appealing
8. Keep emails short and concise
9. Use social media links to compliment email campaigns
10. Include an easy to use 'unsubscribe' link in newsletters and follow the Spam Act 2009

Public Relations Strategy

A viable PR strategy is vital to the success of any tourism promotion campaign. Grand Caverns should seek free publicity in local newspapers, magazines, brochures, local television and radio stations, and billboards. Additionally, if marketing funds exist, a PR professional may serve as a liaison with regional and State media stakeholders to promote tourism of Grand Caverns on a larger scale.[61] Below is a PR mind map of how using a PR strategy may help tourism and economic development[62]:

Figure: 42

Youth Outreach

One of the improvements the Town of Grottoes can make is in engaging the younger population in the community. Expanding on events and festivals that involve the Town's younger populations, along with community development projects can help engage the younger populations and strengthen their commitment to the community. A central goal should facilitate the need for youth involvement to possess a close connection with the community.

With strong community assets like Grand Caverns, improving activities available could greatly impact local economic development and tourism opportunities. In the Citizen's survey, expanding community and recreation centers was listed as a top priority for Grottoes. In addition to survey results, focus group participants indicated a strong desire to increase the amount of events and festivals hosted by the Town of Grottoes. The addition of attractions and events geared towards younger populations could improve the overall appeal for families looking to visit the park.

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[60] "Media and Public Relations." » *Tourism Boost*. N.p., n.d. Web. 07 Dec. 2013.
[61] Ibid.
[62] Ibid.

Currently, Grand Caverns offers organized field trips for students ranging from "kindergarten to college". The website indicates clear instructions on how to make a reservation for a field trip, and a brief description of what the trip would entail. Expanding on the idea of field trips, we recommend including a program geared towards scouting groups. Smoke Hole Caverns, located in Cabins, West Virginia offers specific options for scouting groups looking to tour the Caverns. In addition to specific marketing targets, Smoke Hole Caverns also offers an online form to request group and tour information. Including this simple form on the website allows users more convenient access to book trips, along with providing the Caverns more concentrated information[63].

Increasing Dining Options in Grand Caverns

Residents of Grottoes have continually expressed a desire for an increase in local restaurants and dining options. When asked what type of businesses and services the Town of Grottoes needs, 43.6% of respondents listed restaurants as their top choice. Currently, Grand Caverns also offers and abundance of activities for tourists looking to spend the day at the park. In addition to the Caverns themselves, the swimming pool and miniature golf course offer visitors a wide variety of activities. With all of these assets, we believe there is room to improve the retention of visitors, keeping them in the park longer. We recommend the addition of food options closer to the Caverns to allow tourists the opportunity to enjoy the park without leaving to eat.

Many parks with similar attractions offer a snack bar as a way to keep visitors on grounds longer. Simple seasonal meal options would complement the variety of activities well. Smoke Hole Caverns offers two simple meal options for those visiting the park: the "hot dog meal" and "pizza meal" both include the main course listed, a drink, and chips. Having these simple meals available will not only be attractive to regular visitors, but will also be attractive to groups planning a visit to Grand Caverns[64]. Offering these simple meals during popular tourists seasons will not only keep current visitors longer, but also attract new guests.

Addition of Personnel

Grottoes residents have expressed a desire to expand economically, while remaining a small Town. Adhering to both of these goals simultaneously can be very difficult, as they can contradict each other. The Town of Grottoes would benefit immensely from the addition of a paid staff member to oversee economic development and tourism efforts, and implement improvement strategies.

In addition to implementing the various recommendations, the Economic Development and Tourism Director could oversee the enforcement of aesthetic codes. Currently, the Town of Grottoes has several codes to prevent the emergence of blighted properties: " Between May 1 and September 30 of each year, every owner of property situated in the Town of Grottoes shall cut the grass, weeds, and other foreign growth on such property," (134-22). In the proceeding codes, the Town of Grottoes establishes policies for maintaining properties, including the cutting of weeds, the removal of trash, and the failure to remove trash after notice.

All of the aforementioned policies allow Grottoes to preserve its aesthetic appeal, and protect against blighted properties that can seriously hinder economic development. Enforcing the existing properties would be an effective way to improve the overall appeal for businesses and tourists, without physically expanding. Should the Town of Grottoes decide to enforce the property maintenance policies, the Economic Development and Tourism Director would be tasked with adhering to these codes.

A great Economic Development Director would be a wise investment. Their expertise and knowledge is invaluable toward improving the fiscal health of the Town. The Town of Grottoes would benefit immensely from adding the director position to pursue various different economic development strategies such as business recruitment and grant writing.[65] The Economic Development Director will also help achieve the goals and objectives prescribed within an Economic Development Plan for the Town of Grottoes. All this being said and done, it is not always financially feasible

[63] "Smoke Hole Caverns." *Smoke Hole Resort Lodging and Caverns in Seneca Rocks, West Virginia*. N.p., n.d. Web. 07 Dec. 2013.
[64] Ibid.
[65] Craig, Swartz D. N. (2012, February). Economic Development Plan. Elkton, Virginia.

for a Town the size of Grottoes, to hire a full time Economic Development Director. Below is an alternative recommendation for utilizing interns and graduate assistants to perform economic development director responsibilities. Interns and graduate assistants can be found at local higher education facilities such as James Madison University, Eastern Mennonite University, Bridgewater College, and Blue Ridge Community College.

Internships and Graduate Assistantships

There is a great deal of potential for economic and tourism development directly through Grand Caverns. The current personnel, however, would greatly benefit from additional human resources to manage projects. We recommend that Grottoes continue the mutually beneficial partnership with James Madison University. James Madison currently has a strong Hospitality Management program that seeks to "To develop a community of learners through quality education that integrates theory, practice, and personal growth in the Hospitality, Sport and Recreation industries,"[66]. Creating a relationship this department would benefit Grottoes through access to a number of educated and passionate students who are willing to volunteer time in exchange for work experience. James Madison University Hospitality students would greatly benefit from the enriching career related skills that can only be developed from experience.

Creating a student internship position through the Hospitality Management program would create a lasting and meaningful relationship with university that would benefit both parties. At James Madison, the Department of Community Service Learning helps develop relationships between academic learning and service experiences at the University[67]. They serve as a centralized location for agencies looking to develop lasting partnerships. The Director of Community Programs for the Department manages all potential partnership opportunities at James Madison University. To further this recommendation, contact the Director of Community Programs at (540) 568-7336 for more information.

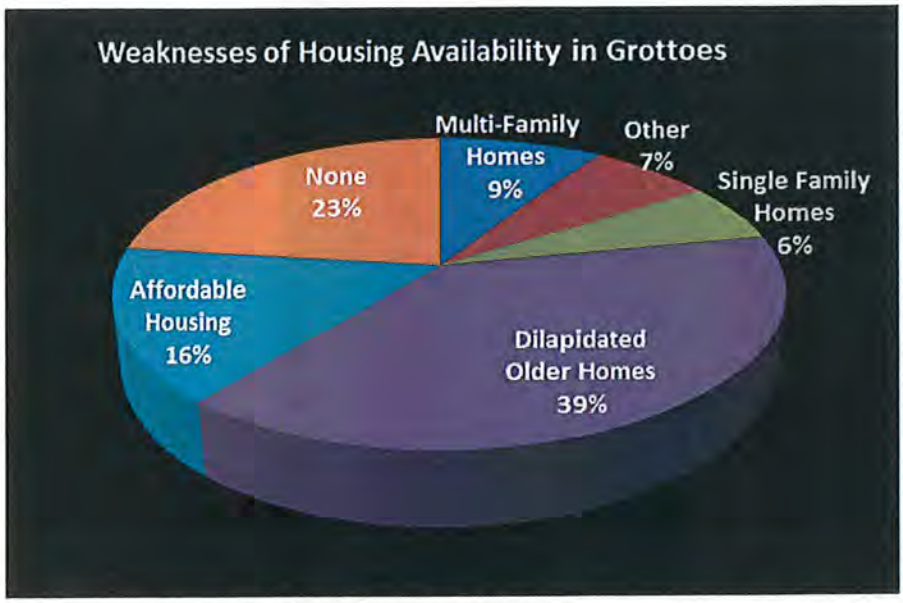


Figure: 43

Restoration of Blighted Areas and Desired Amenities

There are a number of blighted areas in the Town of Grottoes. There are a few issues with blight. It can spread, reduce economic development potential, invite crime, and that is just to name a few negative ramifications of blight. There are a number of residential and industrial blighted areas, and there are separate steps to be taken to restore each of these types of areas. The general opinion survey results also showed that about 39% of Grottoes Town residents feel that dilapidated and older homes are a great weakness of housing availability.

As a result of an observational study by students of the PUAD 560 class at James Madison University on November 13th 2013, it has been observed that many residences in the Town of Grottoes have less than acceptable appearances. This includes dilapidated houses, unsightly yards with overgrown weeds, broken down cars in the front yard, over turned trash cans, and many other visually displeasing aspects of the residence[68]. These areas can discourage businesses from relocating to the area as well as potential residents. It can also cause current residents and businesses to relocate elsewhere. Finally, a visually displeasing Town will not attract visitors. Without visitors, there will be little to no tourism growth for the Town of Grottoes. The recommendation is that the Town of Grottoes enforces current codes, which

[66] "James Madison University." *JMU*. N.p., n.d. Web. 07 Dec. 2013.
[67] Ibid
[68] *PUAD 560 class. James Madison University Grottoes Site Visit* on November 13th 2013: Tom Scanlon, Nicole Evans, Jack Slye.

require residents to keep the outside appearance of their property within certain guidelines. Blighted buildings can hurt the economic vitality of the Town of Grottoes.

The Town survey results show a few amenities residents would like to have added to the Town for the purposes of attracting more visitors and increasing amenities for local residents[69]. It would be recommended that the Town of Grottoes advertise and take measures for attracting these desired businesses. Through the survey, many residents indicated that in order to promote greater tourism, the Town would need to increase the number of restaurants, increase the number of community events, and improve the storefronts of local businesses, among other measures[70]. The graphical representation of this information is shown below.

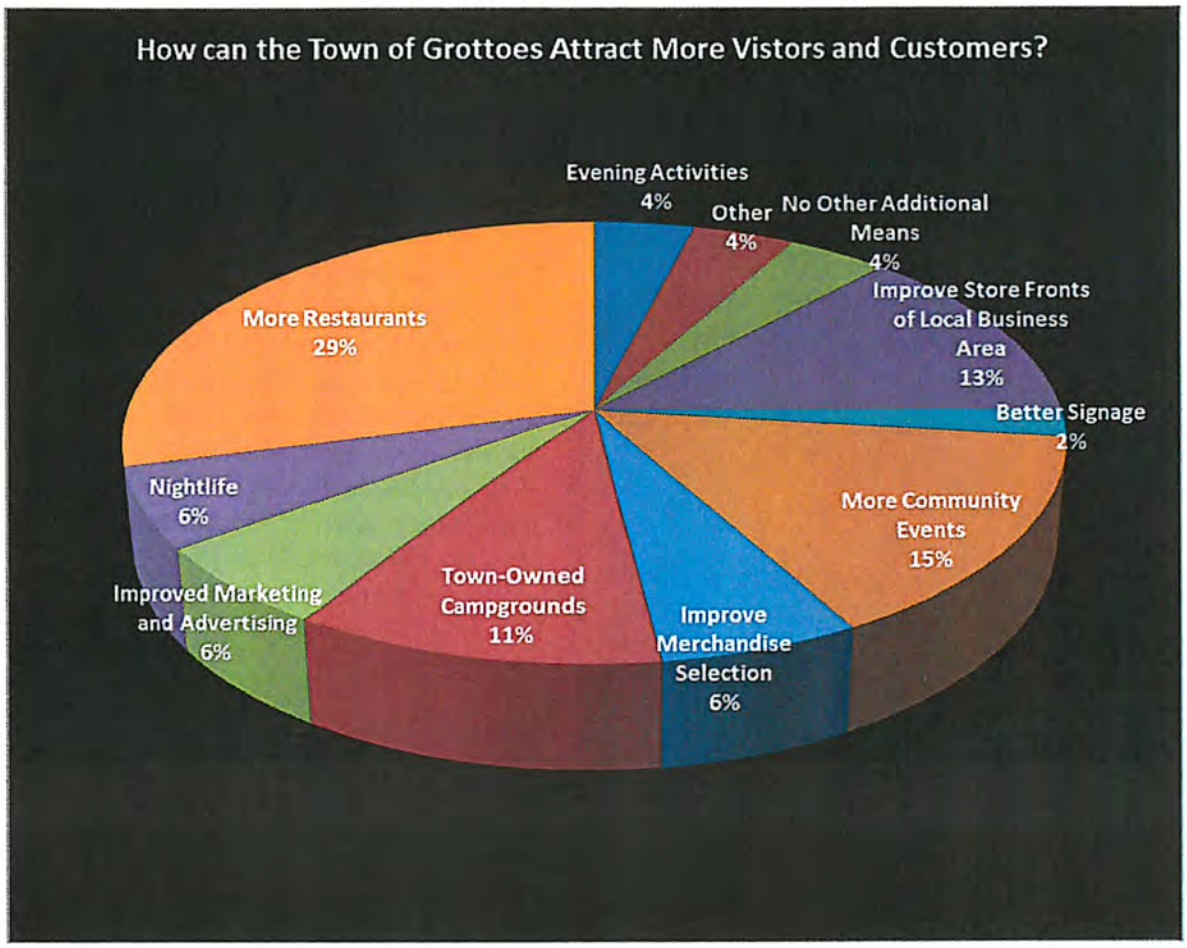


Figure: 44

[69] PUAD 560 class. James Madison University Grottoes Resident Opinion Survey: Ashliegh Krick, AJ Good, Alan Jones
[70] Ibid.

Residents also indicated specific types of amenities they would like to see added to the Town of Grottoes. Based on the survey residents indicated that the top three types of amenities they would like to have added would be restaurants, café bistros, and gyms[71]. A graphical representation of this information is listed below.

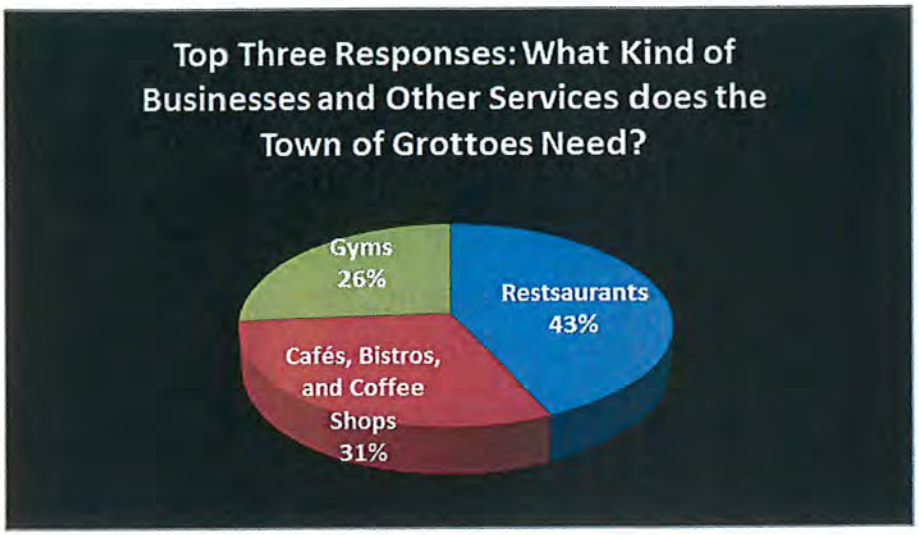


Figure: 45

Based on the information about blighted areas and desired amenities from the residents of Grottoes, it would be recommended that the Town of Grottoes advertise and attract businesses in the area of fast food restaurants, café bistros, and gyms to fill the old silk shop and buildings across the street. The old silk shop is a very large space in the middle of the Town and could easily fit two or three new businesses. There is certainly a service need for new restaurants, cafés, and gyms. Governing Town officials must ensure to make that need known through advertisement, and perhaps direct contact with desired businesses (i.e. Gold's Gym, Starbucks, McDonald's, etc.). By adding replacing blighted areas with new businesses, the Town of Grottoes would increase tourism, fulfill citizen needs, and increase overall Town attractiveness for potential residents and business owners. The introduction of new businesses will create jobs within Town borders in efforts to life unemployment in the region.

[71] Ibid.

Section 6: Appendix

Section 6.1: Town of Grottoes Survey Results

Introduction

The Town of Grottoes, VA is home to approximately 2,688 residents. As with any Town, it is imperative for the government to provide services, exercise effectiveness, and plan for growth in ways that best reflect the needs/wants of its citizenry. In an effort to capture citizen input, one thousand, 23-question surveys were sent along with a Town bill.

To accurately make inferences about data, and generalize it to the entire population, it is important to have a certain amount of surveys returned. Most social research aims for ±5 – 10 % error, so around a sample size of 3.3% – 11.6 % of the population. Over 30% or 280 Town of Grottoes' surveys out of 1,000, were returned. Given the population of Grottoes, over 10% of the population completed the survey and the error falls between the 5% - 10% range. Thus, it can be assumed that the responses collected from this survey capture citizen response accurately and holistically. [72]

Respondents Needed at Error of ±3%, ±5%, & ±10%			
Population	**±3%**	**±5%**	**±10%**
500	345	220	80
1,000	525	285	90
3,000	810	350	100
5,000	910	370	100
10,000	1,000	385	100
100,000	1,100	400	100
1,000,000	1,100	400	100
10,000,000	1,110	400	100

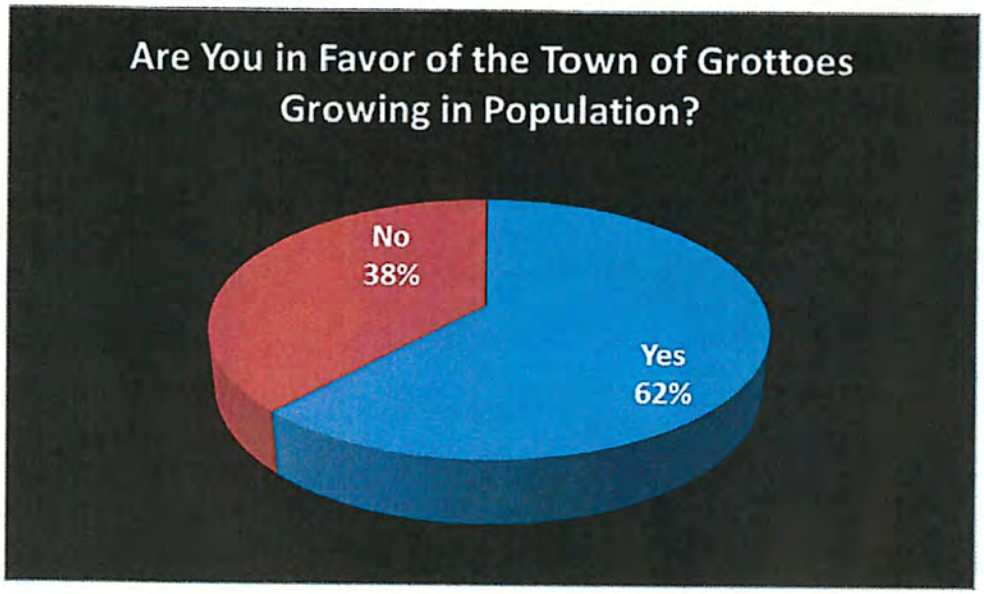
This report analyzes the responses of 280 citizens from the Town of Grottoes. The 280 respondent's information will be analyzed in this report and given to the JMU PUAD 560 class to create recommendations to include in the Comprehensive plan based upon the information provided in the report. This report will not include those recommendations.

[72] "Section 13. Conducting Surveys." *Main Section*. N.p., n.d. Web. 06 Feb. 2014.

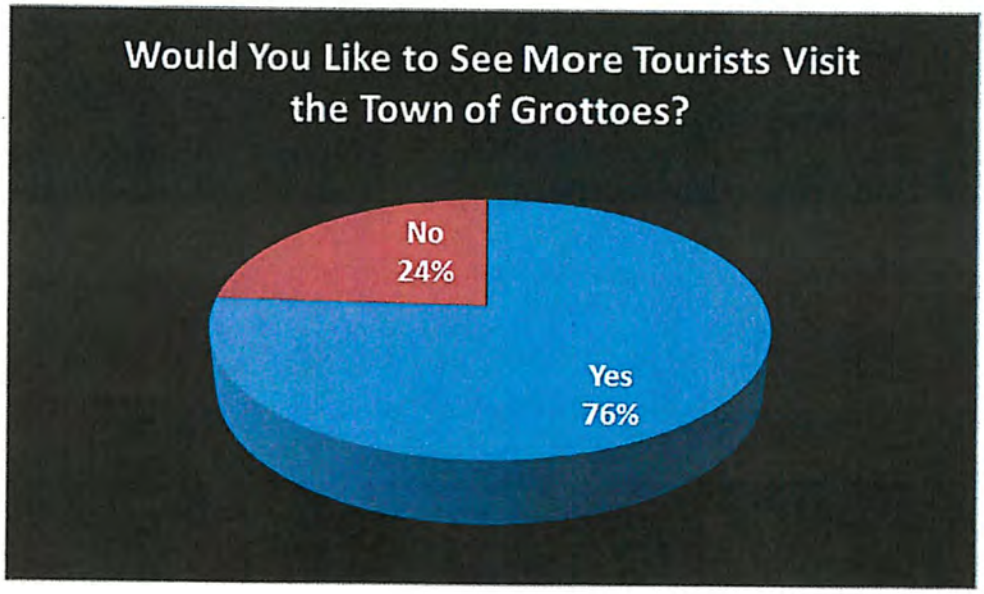
Survey Questions and Charts

Question 1-3

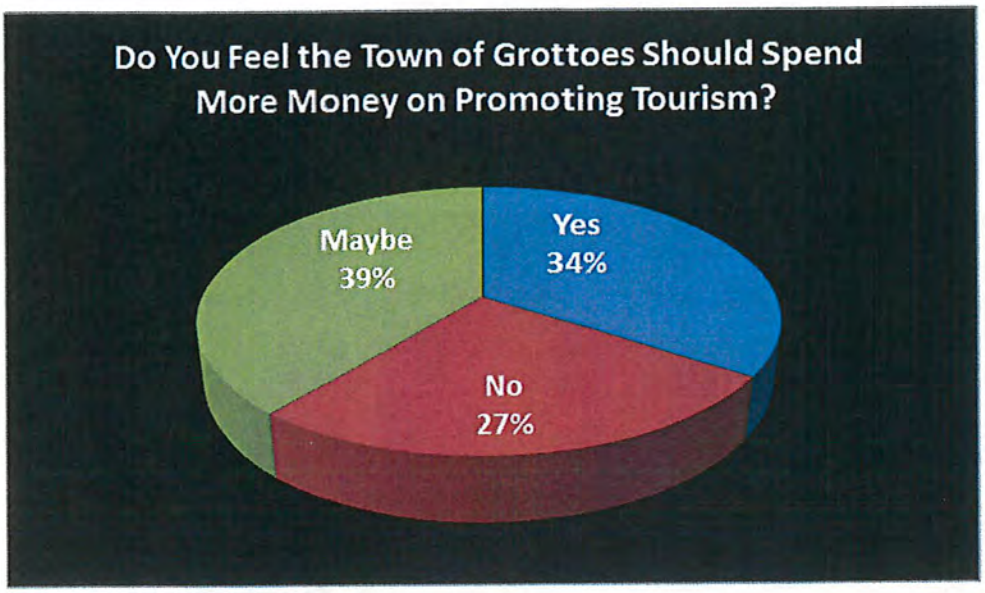
Question 1: Of the 280 total responses to the survey 269 answered question 1, "Are you in favor of the Town of Grottoes growing in population?" 166 citizens or 61.7 percent responded yes, 103 or 38.3 percent responded no.



Question 2: 272 answered question 2, "Would you like to see more tourist visit the Town of Grottoes?" 206 citizens or 75.7 percent responded yes and 66 or 24.3 percent responded no.



Question 3: 275 citizens responded to question 3, "Do you feel that the Town of Grottoes should spend more money on promoting Tourism?" Out of the 275 responses 95 citizens or 34.5 percent responded yes, 73 or 26.5 percent responded no, and 107 or 38.9 percent responded maybe.

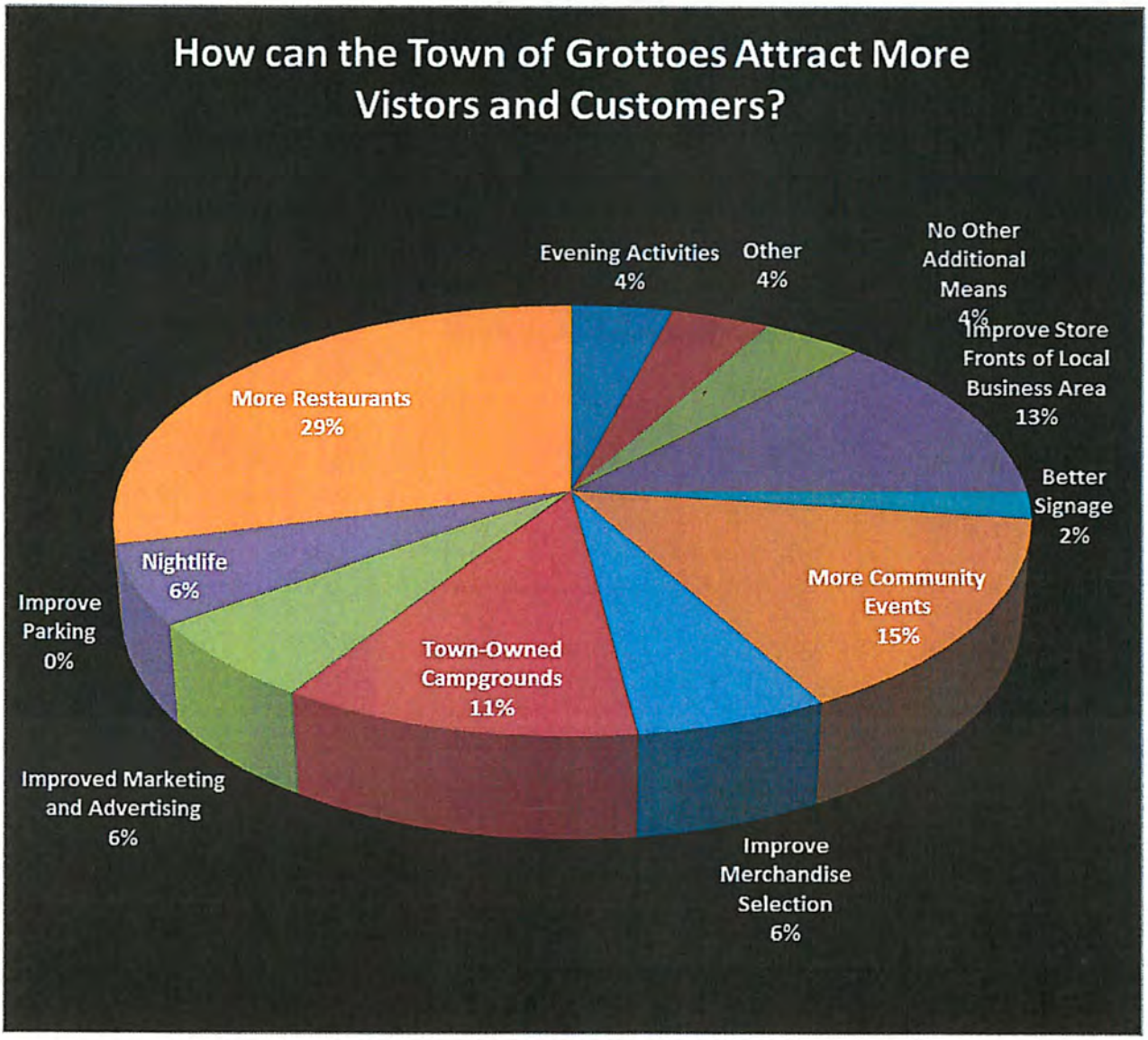


Question 4

There are 560 responses to question 4, "How can the Town of Grottoes attract more visitors?" The 280 respondents were allowed to select their top 2 responses to the question totaling 560 total responses.

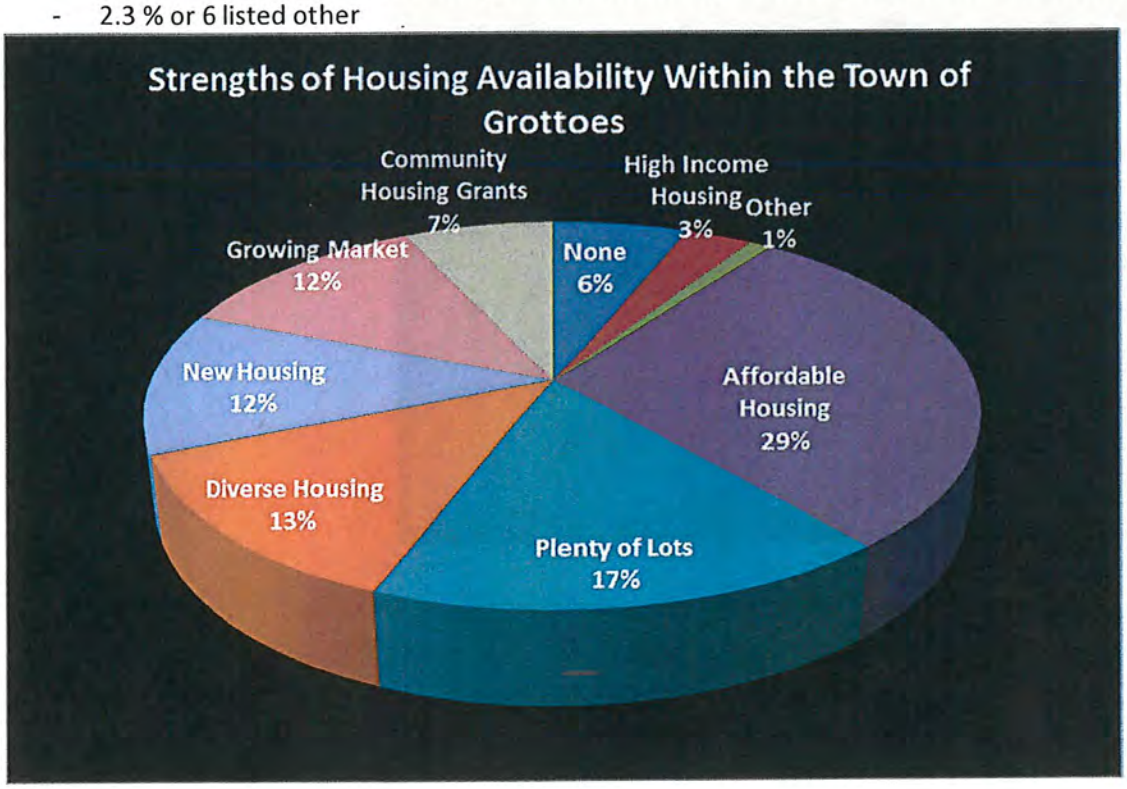
Top response: 138 or 29.1 percent chose more restaurants as a way to attract more visitors, making it the number 1 response.

Second most response: More community events with 72 responses or 15.2 percent.



Question 5

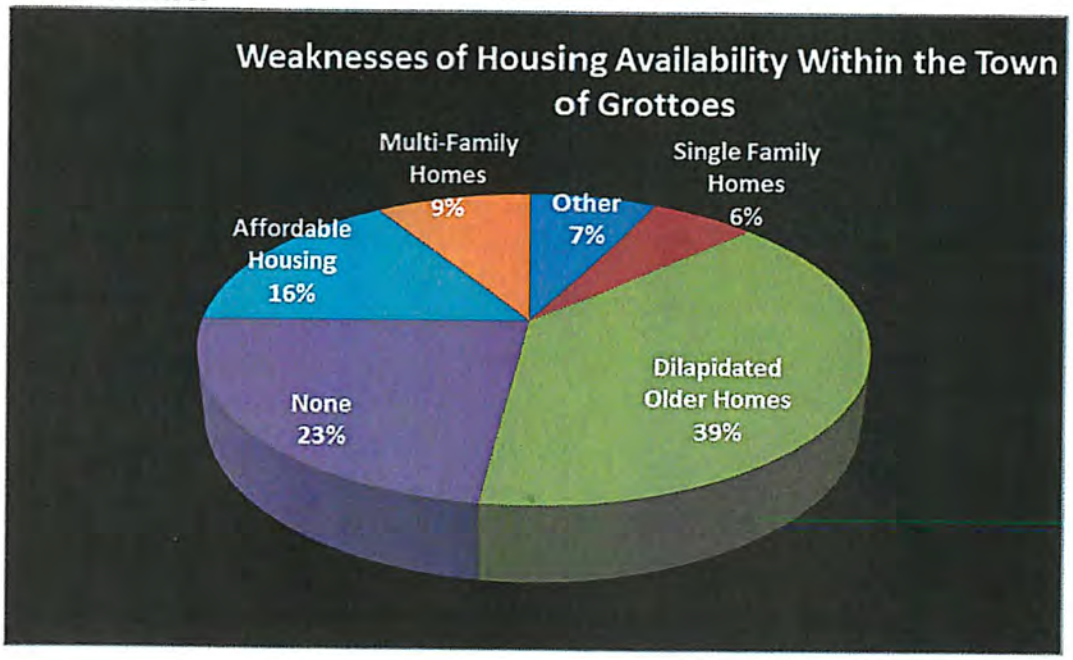
- There are 261 responses to question 5, "Please identify any strengths of housing availability within the Town of Grottoes?" 19 responses are missing.
- 52.1 % or 136 citizens listed affordable housing as a strength within the Town of Grottoes
- 30.2 % or 79 citizens listed "Plenty of lots" as a strength
- 24.1 % or 63 citizens listed diverse housing as a strength of the Town of Grottoes
- 22.6% or 59 citizens listed new housing as a strength within the Town of Grottoes
- 21 % or 55 citizens listed a growing market as a strength of Grottoes
- 12.2 % or 32 citizens listed community housing grants as a strength within the Town of Grottoes
- 11.1 % 29 stated there are no housing strengths in the Town of Grottoes.
- 4.6 % or 12 citizens listed that high income housing is a strength within the Town of Grottoes
- 2.3 % or 6 listed other



Question 6

There are 252 responses to question 6, "Please identify any weaknesses of the housing availability within the Town of Grottoes?"

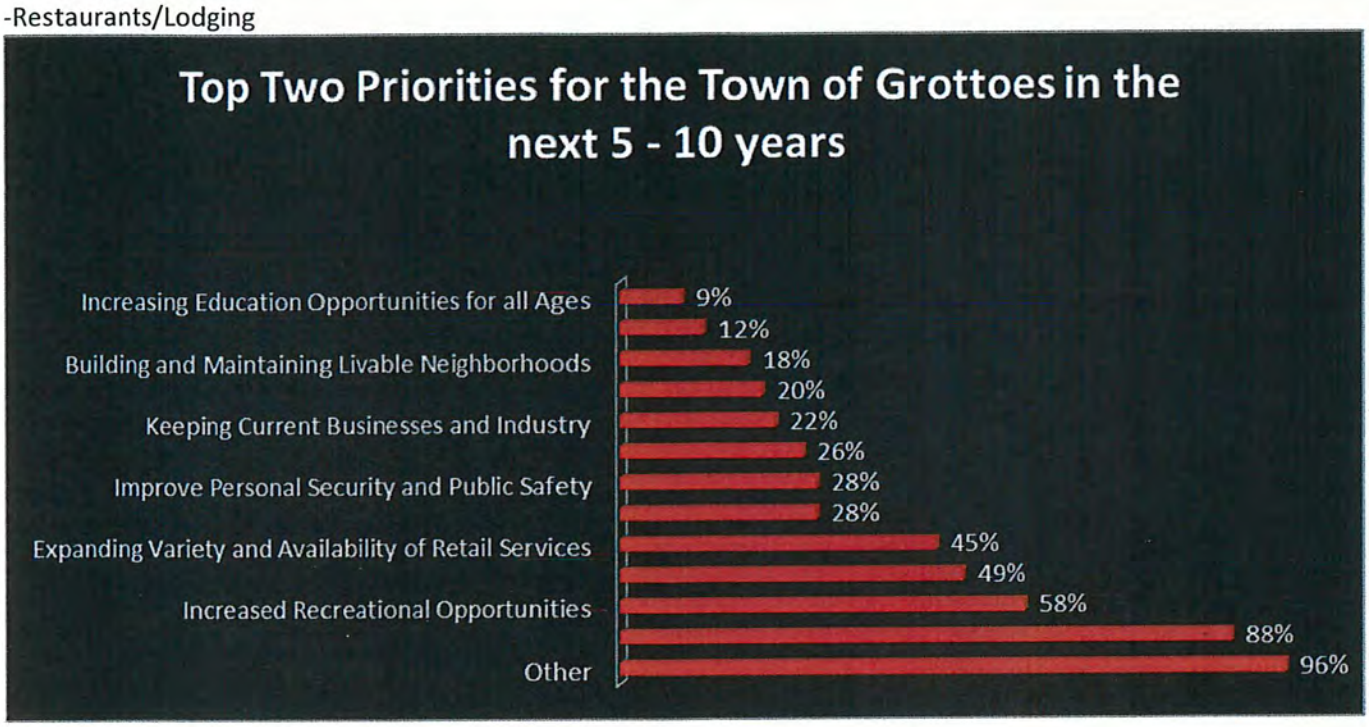
- 46% or 116 listed dilapidated/older homes as a weakness
- 27.4 % or 69 listed that there is no weakness
- 18.3 % or 46 respondents listed affordable housing as a weakness
- 11.1 % or 28 listed multifamily homes as a weakness
- 8.3 % or 21 listed other
- 7.1 % or 18 respondents listed single family homes as a weakness of housing availability within the Town of Grottoes

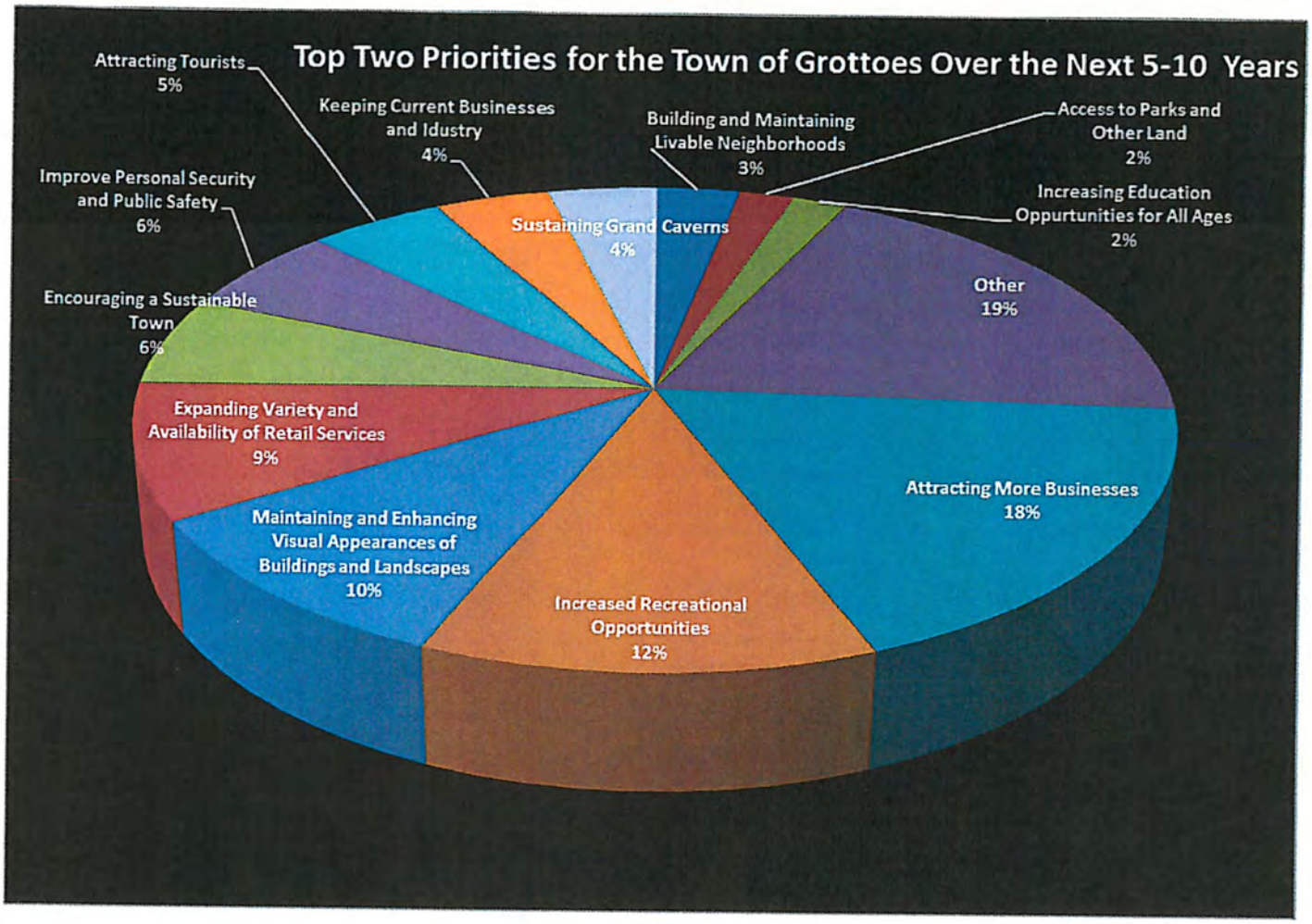


Question 7

There were 560 responses to question 7, "Please select the top two priorities for the Town of Grottoes for the next 5-10 years?" The 280 respondents were allowed 2 choices, which resulted in a response frequency of 560.

The top priority received 88 responses, who listed attracting more businesses as a top priority.
The top priority receiving the second most is "Other" receiving 66 respondents:
The most common write-in for "other" is:
-Community/Recreation Center
-Convenience Stores
-Restaurants/Lodging

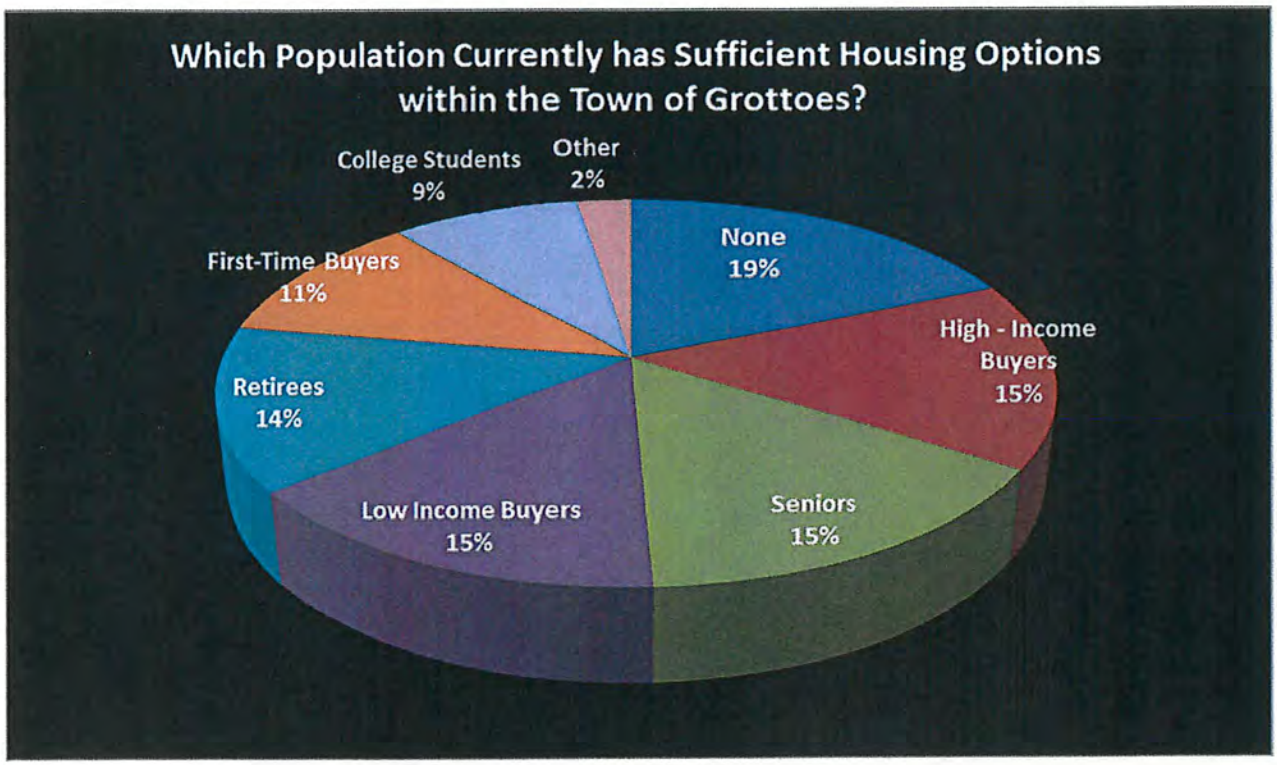



Top Two Priorities for the Town of Grottoes Over the Next 5-10 Years
Attracting Tourists 5%
Keeping Current Businesses and Idustry 4%
Building and Maintaining Livable Neighborhoods 3%
Access to Parks and Other Land 2%
Improve Personal Security and Public Safety 6%
Increasing Education Oppurtunities for All Ages 2%
Sustaining Grand Caverns 4%
Other 19%
Encouraging a Sustainable Town 6%
Expanding Variety and Availability of Retail Services 9%
Attracting More Businesses 18%
Maintaining and Enhancing Visual Appearances of Buildings and Landscapes 10%
Increased Recreational Opportunities 12%

Question 8

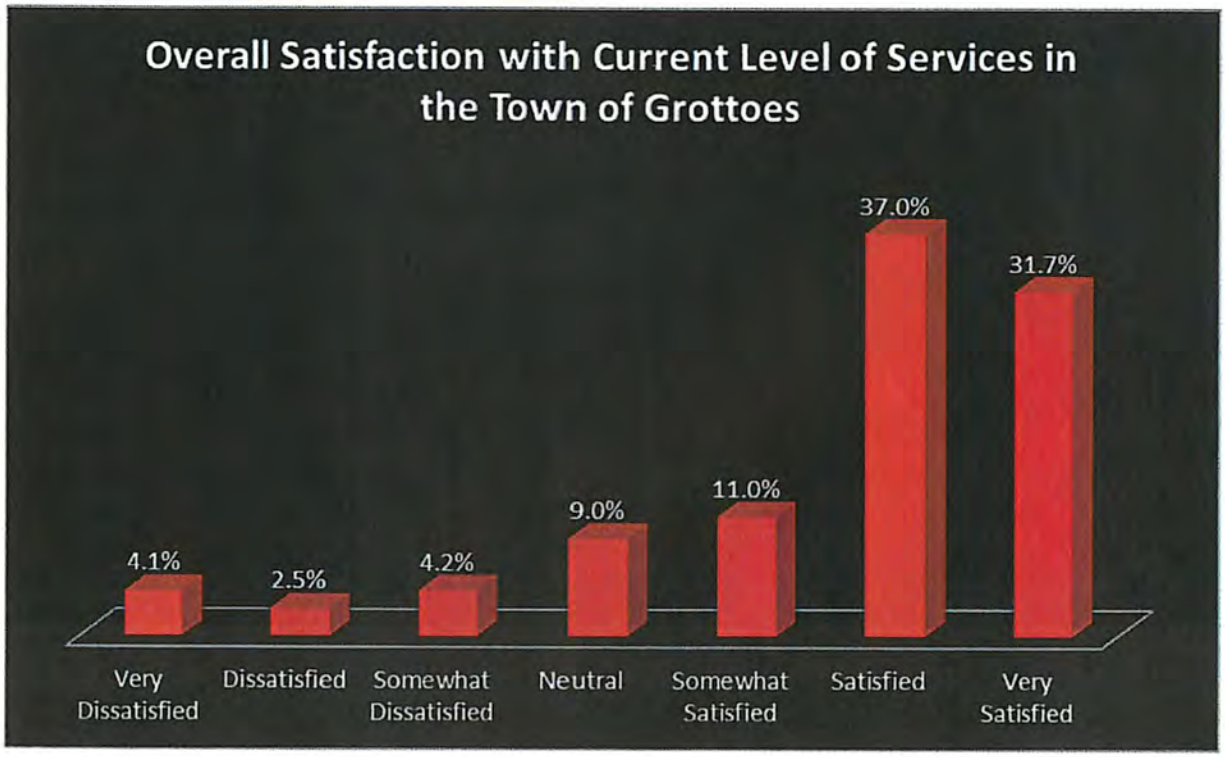
250 responses were collected for question 8, "Which population currently has insufficient housing options."

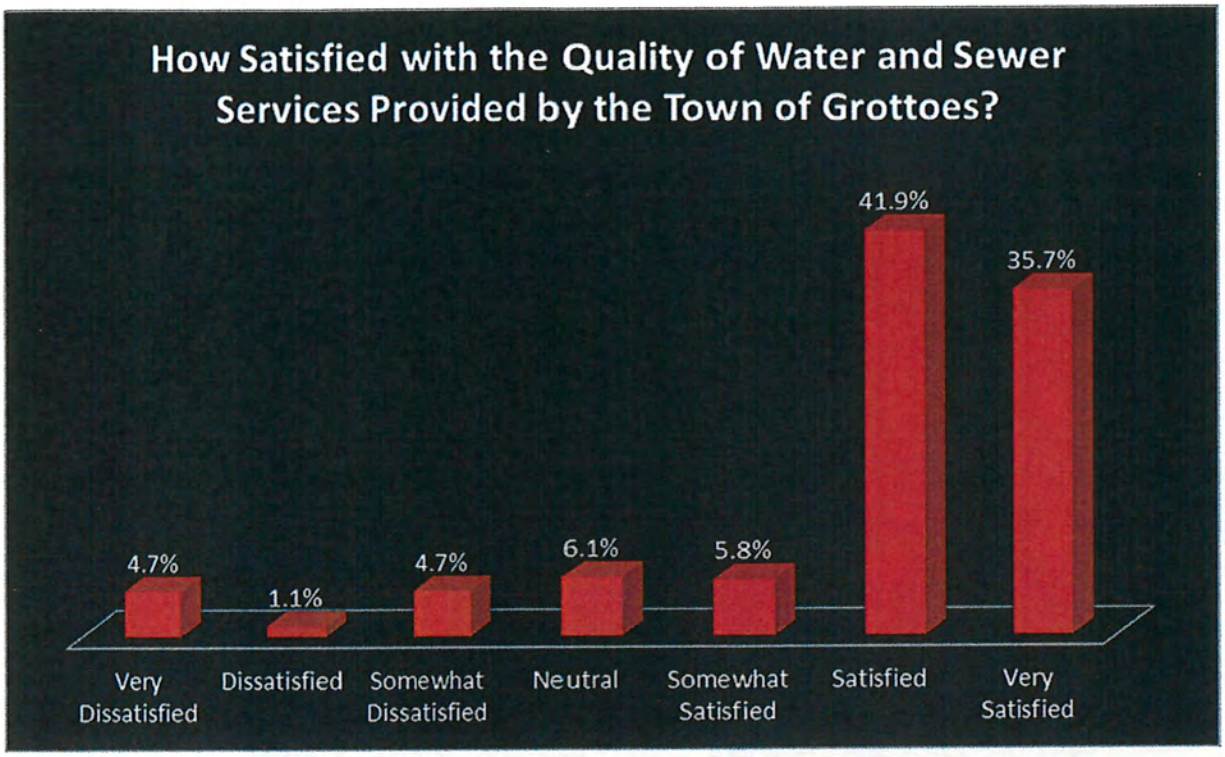
- 26.8 % or 67 believe that no one has insufficient housing options
- 22.4 % or 56 believe high income have insufficient housing options
- 21.6 % or 54 citizens believes that seniors have insufficient housing options within the Town of Grottoes
- 21.2 % or 53 believe that low income buyers have insufficient housing options within the Town of Grottoes
- 19.6 % or 49 citizens believed that retirees have insufficient housing options
- 16% or 40 citizens feel that first time buyers have insufficient housing options within the Town of Grottoes
- 12.4 % or 31 believe college students have insufficient housing options in the Town of Grottoes
- 3.6% or 9 believe that other populations not listed have insufficient housing populations.



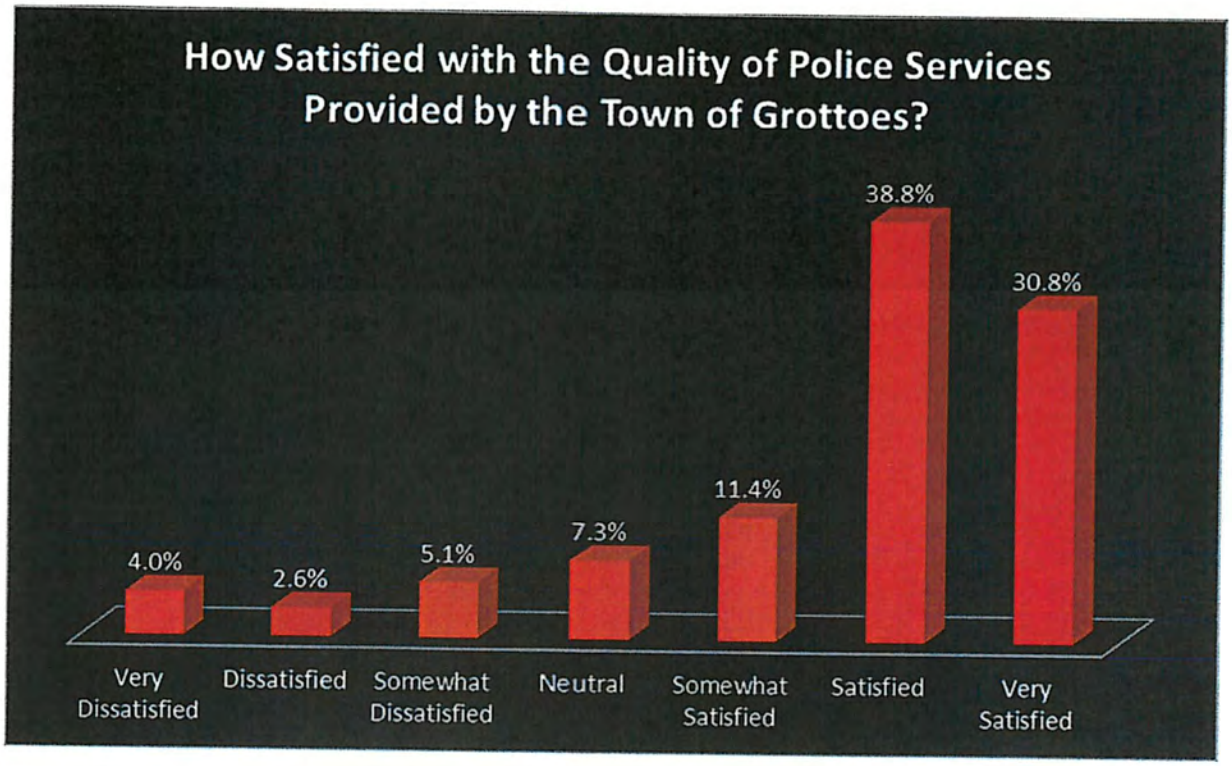
Question 9

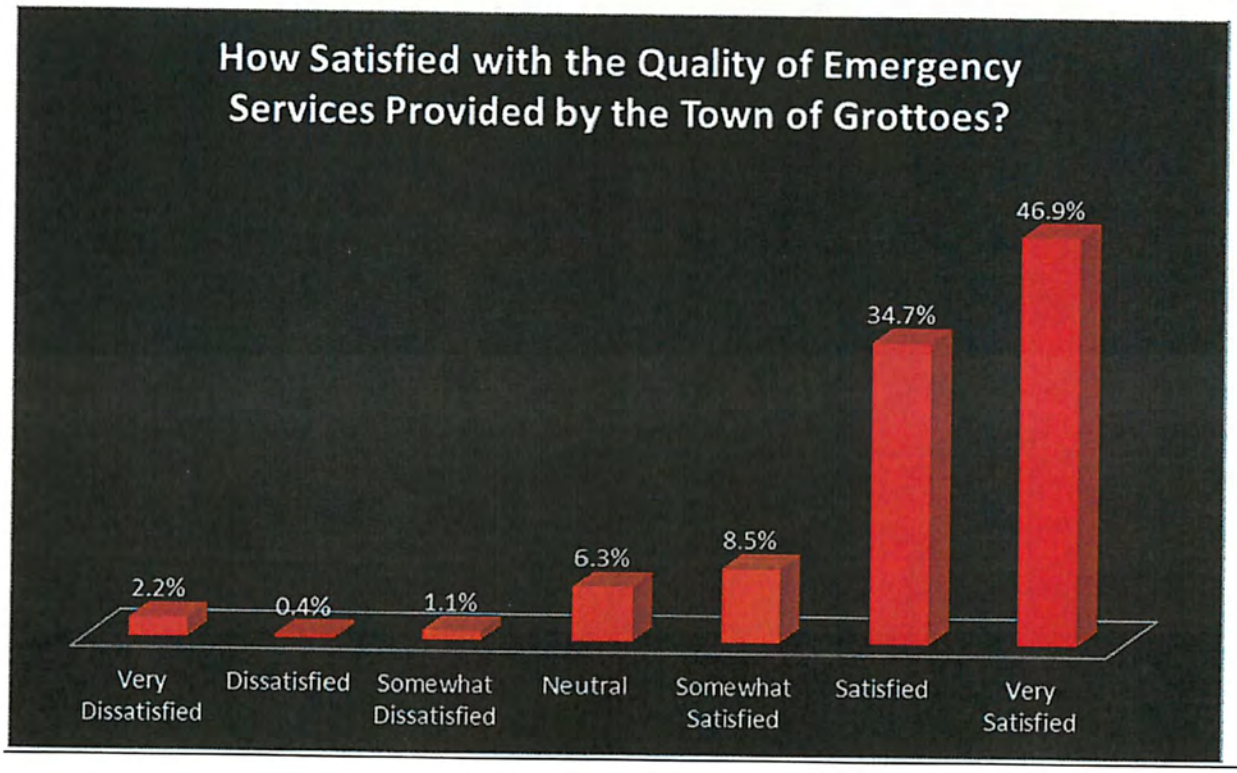
Question 9 looks at the overall satisfaction of the citizens with the services that the Town provides.
Water Quality: In looking at the water quality 116 or 41.9 percent of citizens in the survey are satisfied.
Solid Waste Disposal: 107 or 39.8 percent of citizens in the survey are satisfied with solid waste disposal.
Police Service provided: 106 or 38.8 percent of citizens in the survey are satisfied with the quality of Police service provided.
Emergency Services: 127 or 46.9 percent of citizens in the survey are very satisfied with the emergency services in the Town of Grottoes.
Recreational Facilities: 33 percent or 90 citizens in the survey are satisfied with the recreational facilities in the Town of Grottoes.
Government Administration: 103 or 37.9 percent of citizens in the survey are somewhat satisfied with the Town of Grottoes Administration.

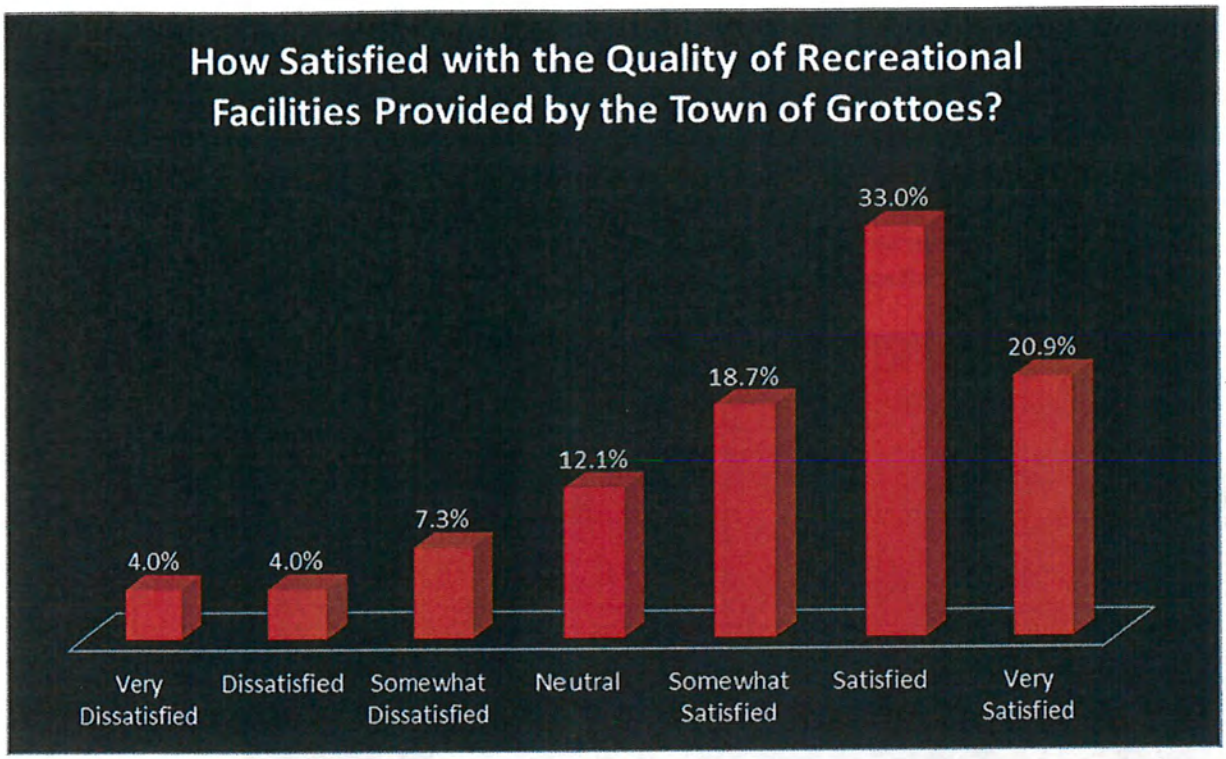


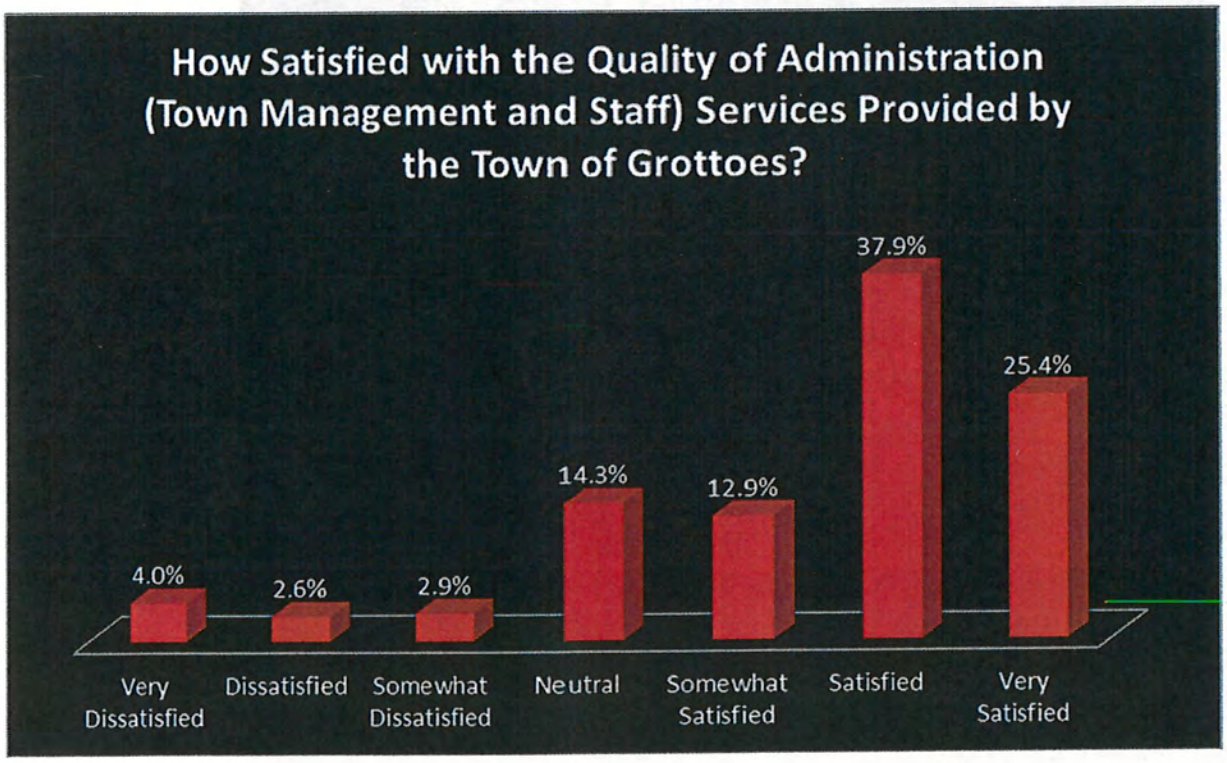

How Satisfied with the Quality of Water and Sewer Services Provided by the Town of Grottoes?
4.7%
1.1%
4.7%
6.1%
5.8%
41.9%
35.7%
Very Dissatisfied
Dissatisfied
Somewhat Dissatisfied
Neutral
Somewhat Satisfied
Satisfied
Very Satisfied

How Satisfied with the Quality of Solid Waste Services Provided by the Town of Grottoes?
4.1%
3.0%
3.0%
7.4%
8.9%
39.8%
33.8%
Very Dissatisfied
Dissatisfied
Somewhat Dissatisfied
Neutral
Somewhat Satisfied
Satisfied
Very Satisfied


How Satisfied with the Quality of Police Services Provided by the Town of Grottoes?
4.0%
2.6%
5.1%
7.3%
11.4%
38.8%
30.8%
Very Dissatisfied
Dissatisfied
Somewhat Dissatisfied
Neutral
Somewhat Satisfied
Satisfied
Very Satisfied


How Satisfied with the Quality of Emergency Services Provided by the Town of Grottoes?
2.2%
0.4%
1.1%
6.3%
8.5%
34.7%
46.9%
Very Dissatisfied
Dissatisfied
Somewhat Dissatisfied
Neutral
Somewhat Satisfied
Satisfied
Very Satisfied

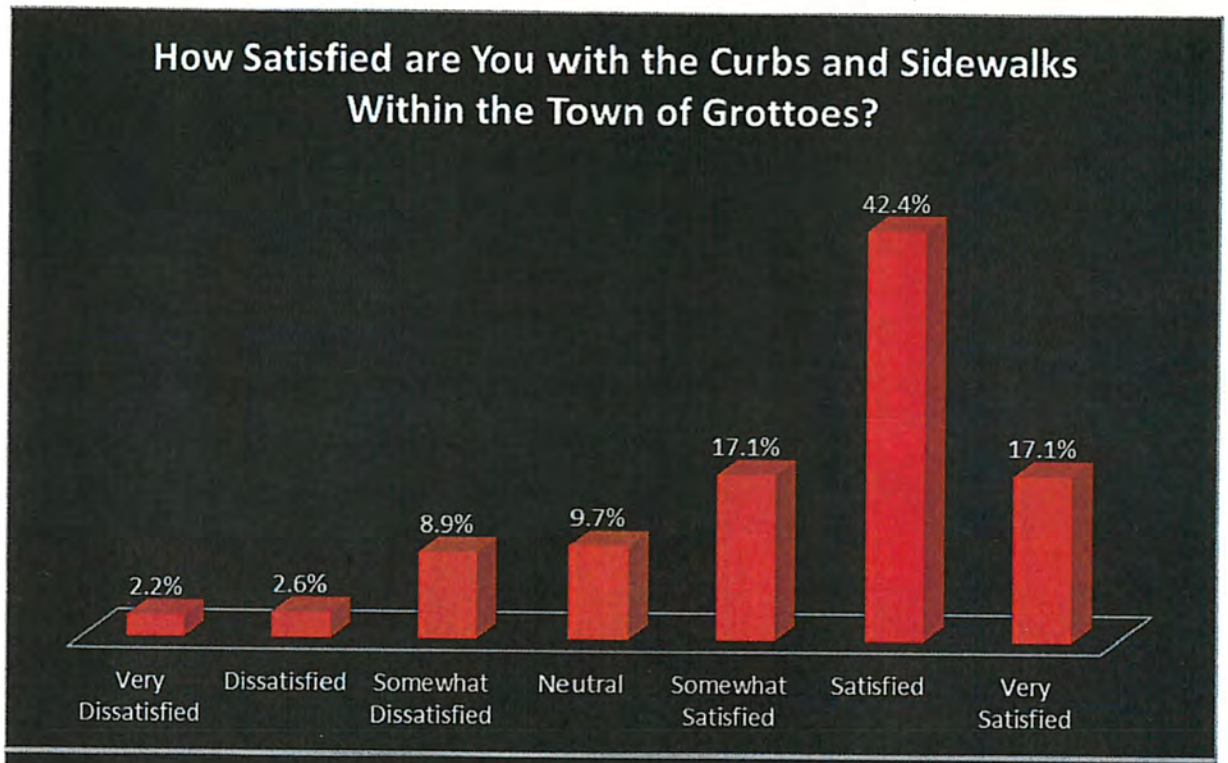

How Satisfied with the Quality of Recreational Facilities Provided by the Town of Grottoes?
4.0%
4.0%
7.3%
12.1%
18.7%
33.0%
20.9%
Very Dissatisfied
Dissatisfied
Somewhat Dissatisfied
Neutral
Somewhat Satisfied
Satisfied
Very Satisfied

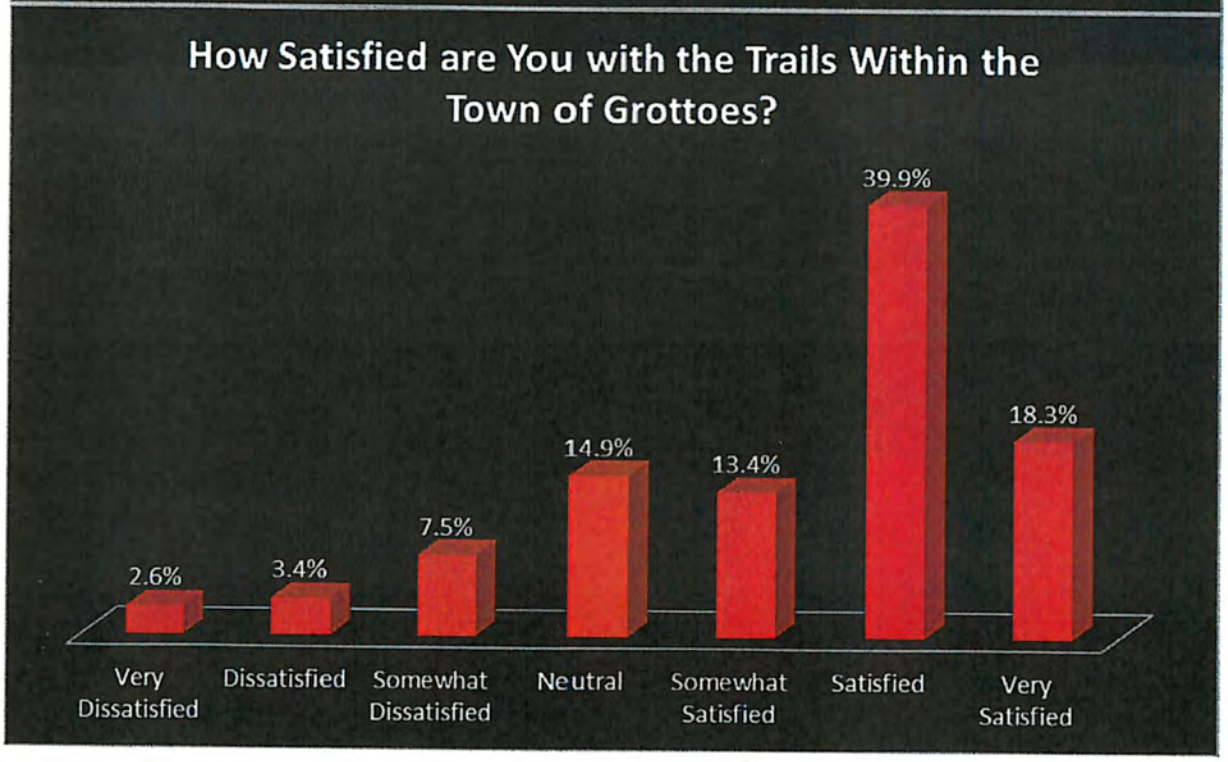

How Satisfied with the Quality of Administration (Town Management and Staff) Services Provided by the Town of Grottoes?
4.0%
2.6%
2.9%
14.3%
12.9%
37.9%
25.4%
Very Dissatisfied
Dissatisfied
Somewhat Dissatisfied
Neutral
Somewhat Satisfied
Satisfied
Very Satisfied

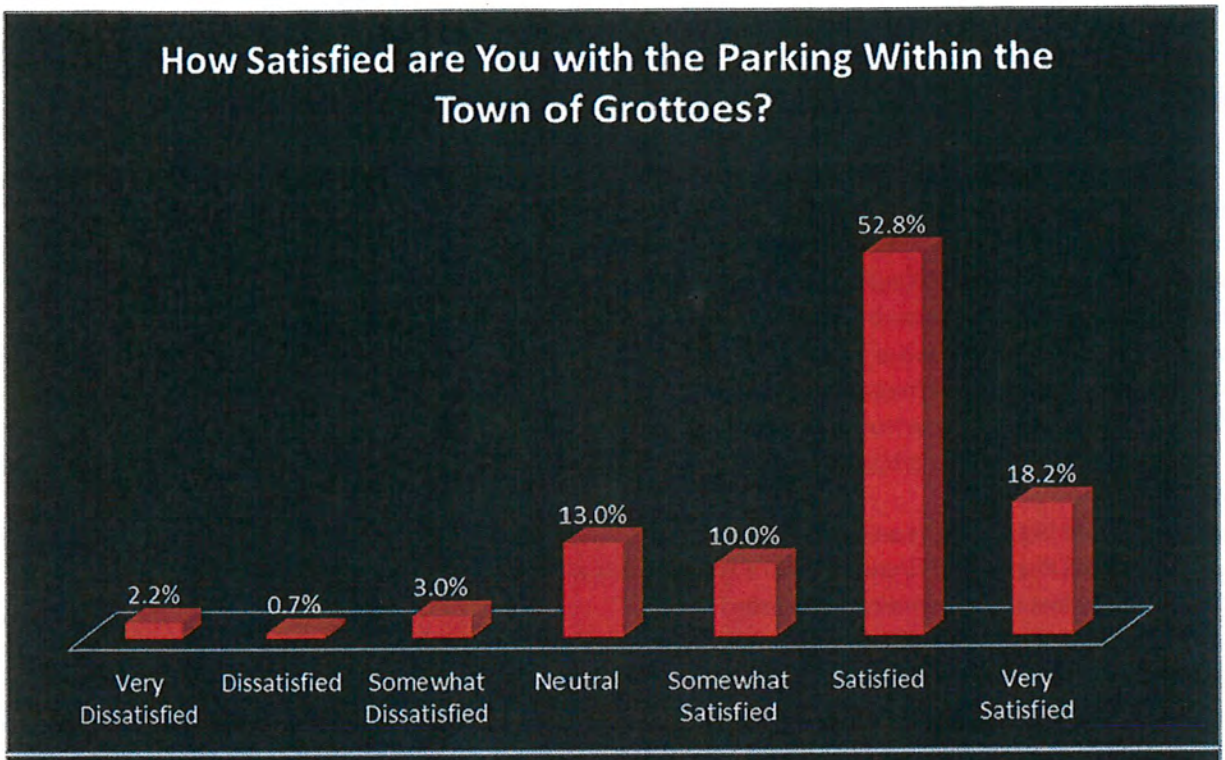
Question 10

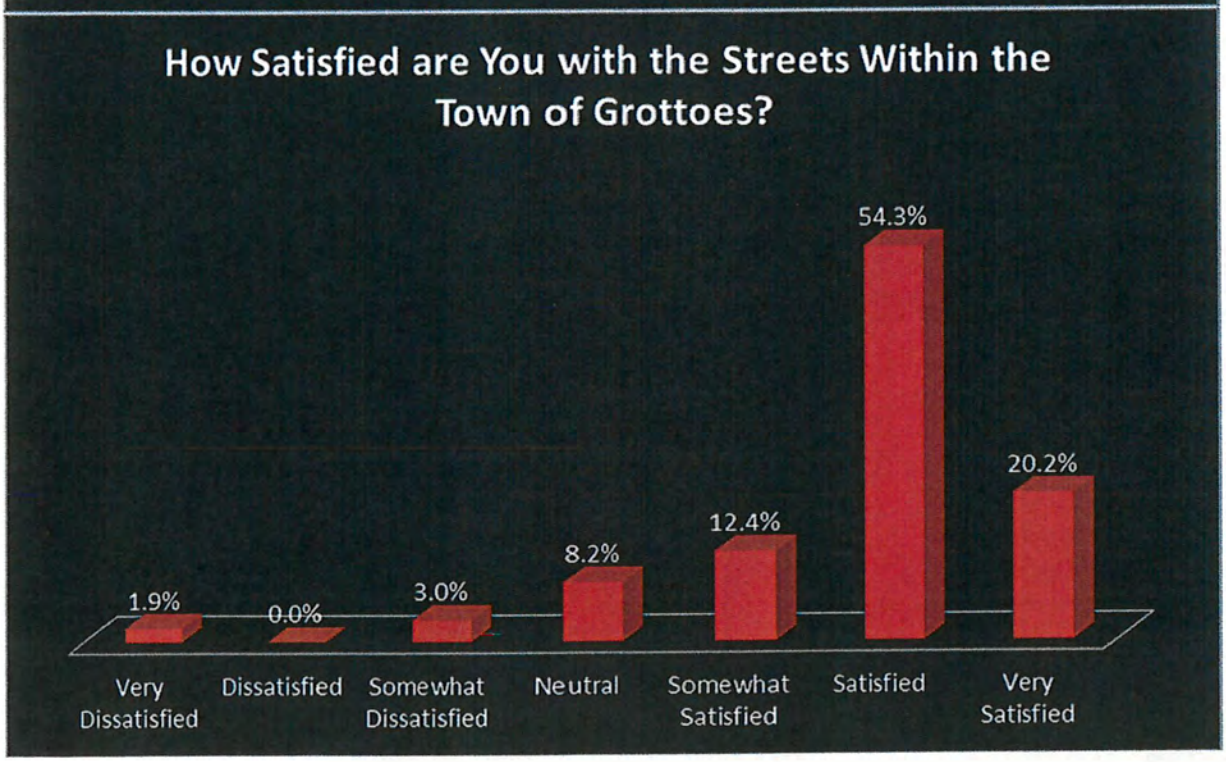
Question 10 looks at the overall satisfaction of the transportation in the Town of Grottoes.

- **Curbs and Sidewalks**: In regards to curbs and sidewalks 114 or 42.4 percent are satisfied with curbs and sidewalks in the Town of Grottoes.
- **Trails:** 107 or 39.9 percent are satisfied with trails in the Town of Grottoes
- **Parking**: 52.8 percent or 142 are satisfied with parking
- **Streets:** 145 or 54.3 percent are satisfied with streets





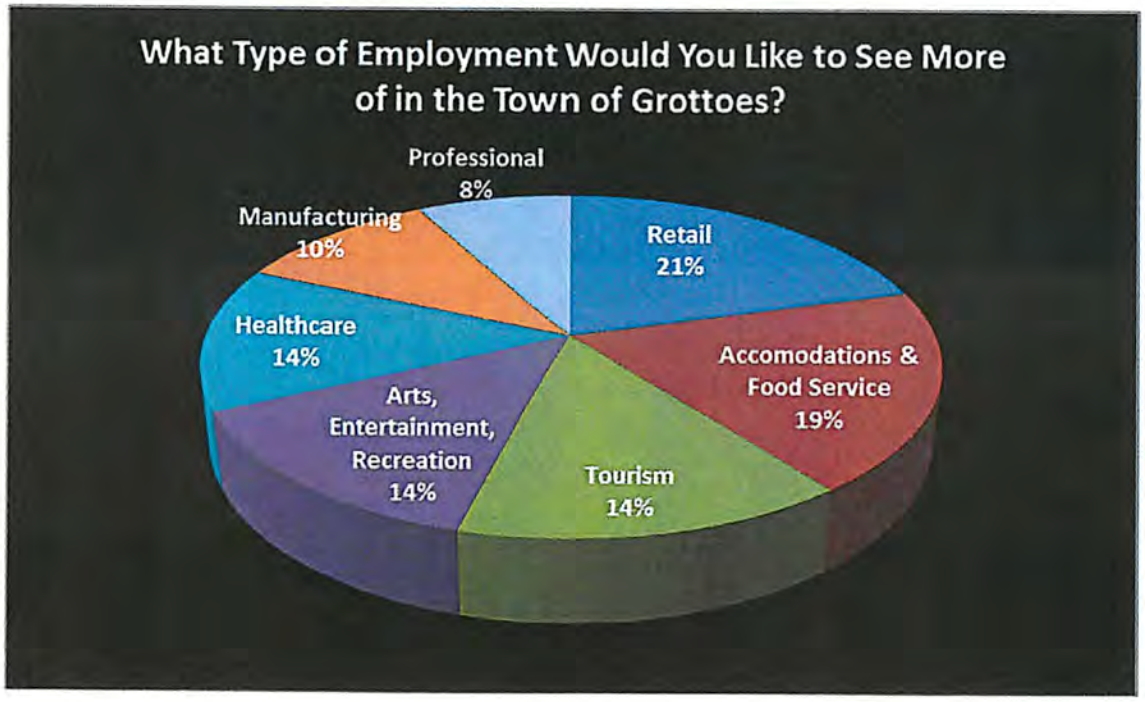

How Satisfied are You with the Parking Within the Town of Grottoes?
2.2%
0.7%
3.0%
13.0%
10.0%
52.8%
18.2%
Very Dissatisfied
Dissatisfied
Somewhat Dissatisfied
Neutral
Somewhat Satisfied
Satisfied
Very Satisfied


How Satisfied are You with the Streets Within the Town of Grottoes?
1.9%
0.0%
3.0%
8.2%
12.4%
54.3%
20.2%
Very Dissatisfied
Dissatisfied
Somewhat Dissatisfied
Neutral
Somewhat Satisfied
Satisfied
Very Satisfied

Question 11

Question 11 asks, "What type of employment would you like to see in the Town of Grottoes.

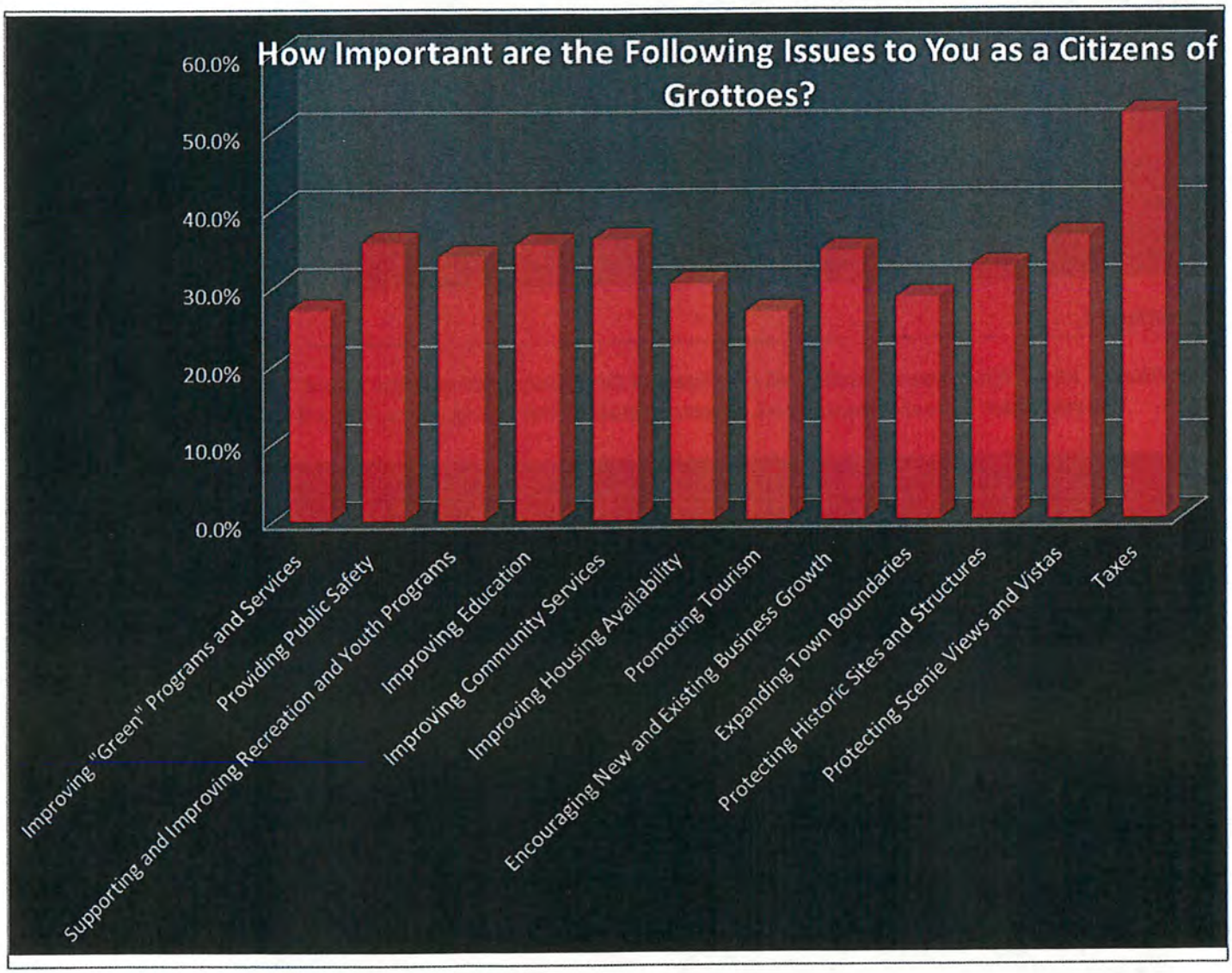
- 130 or 48.7 percent would like to see retail jobs
- 119 or 44.7 percent would like to see accommodations and food service jobs
- 91 or 34.1 percent would like to see tourism jobs
- 87 or 32.6 percent would like to see Arts, Entertainment and Recreation jobs
- 86 or 32.2 percent would like to see Health Care jobs
- 67 or 25.1 would like to see manufacturing jobs
- 50 or 18.7 would like to see Professional jobs
- 48 or 18 percent would like to see educational services jobs
- 42 or 15.7 percent would like to see wholesale jobs
- 40 respondents or 15 percent of the citizens in the survey said they would like to see more Agriculture, Forestry and fishing jobs
- 34 or 12.7 percent would like to see transportation and warehousing jobs
- 34 or 12.7 percent would like to see finance, insurance and real estate jobs
- 30 or 7.5 percent would like to see government jobs
- 28 or 10.5 percent would like to see administrative and support service jobs
- 23 or 8.6 percent would like to see Construction jobs
- 21 or 7.9 percent would like to see information jobs
- 18 citizens responded with none and 15 responded with other.
- 14 or 5.2 percent would like to see utilities jobs
- 2 or .7 percent would like to see mining jobs



Question 12

Question 12 focused on the important issues that the citizens of Grottoes have in respect to future growth and development.

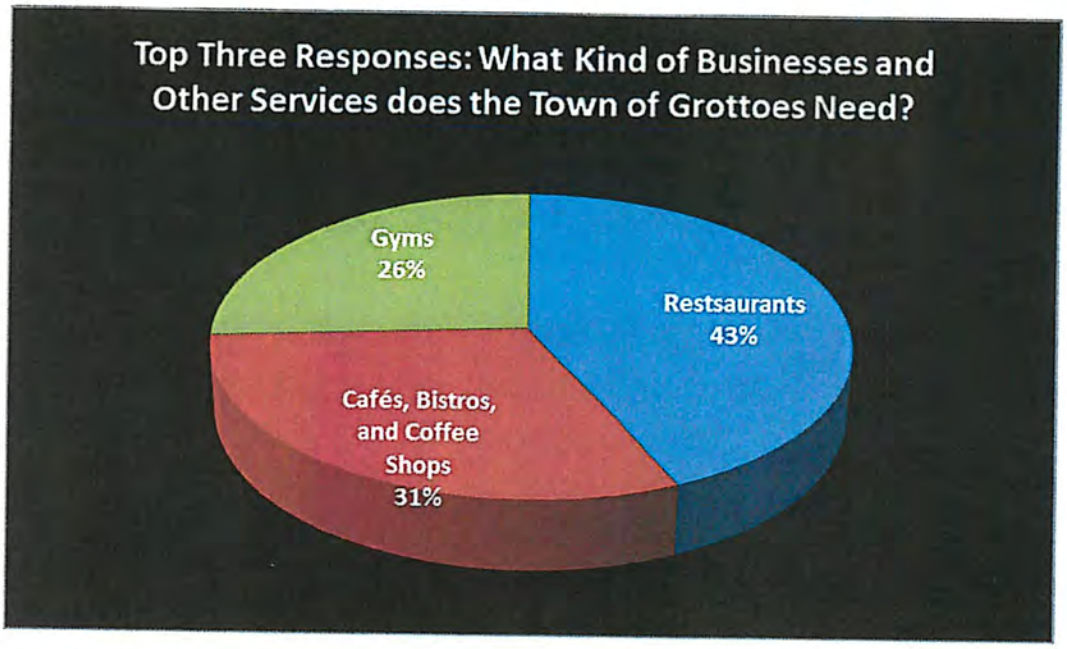
- 146 or 54.3 percent of citizens said that affordable taxes are extremely important.
- 121 or 45.3 percent said that providing public safety is extremely important.
- 102 or 38.8 percent said protecting scenic views and vistas is very important.
- 101 or 37.7 percent said that improving community services are very important.
- 99 or 36.9 percent said that improving education is very important.
- 97 or 36.2 percent said encouraging new and existing business growth as very important.
- 91 or 34.1 percent stated preserving historic sites and structures as very important
- 85 or 31.6 percent said improving housing availability is somewhat important.
- 80 or 30.3 percent of citizens stated expanding Town boundaries a neither important nor unimportant.
- 76 or 28.8 percent said that improving green programs and services was very important.
- 75 or 28.2 percent said that promoting tourism is very important.



Question 13

Question 13 looks at the types of businesses and services that the Town of Grottoes needs, and gathered 266 responses. The respondents were allowed to choose up to 3 answers. The top three responses were restaurants, gyms, and café, bistros and coffee shops.

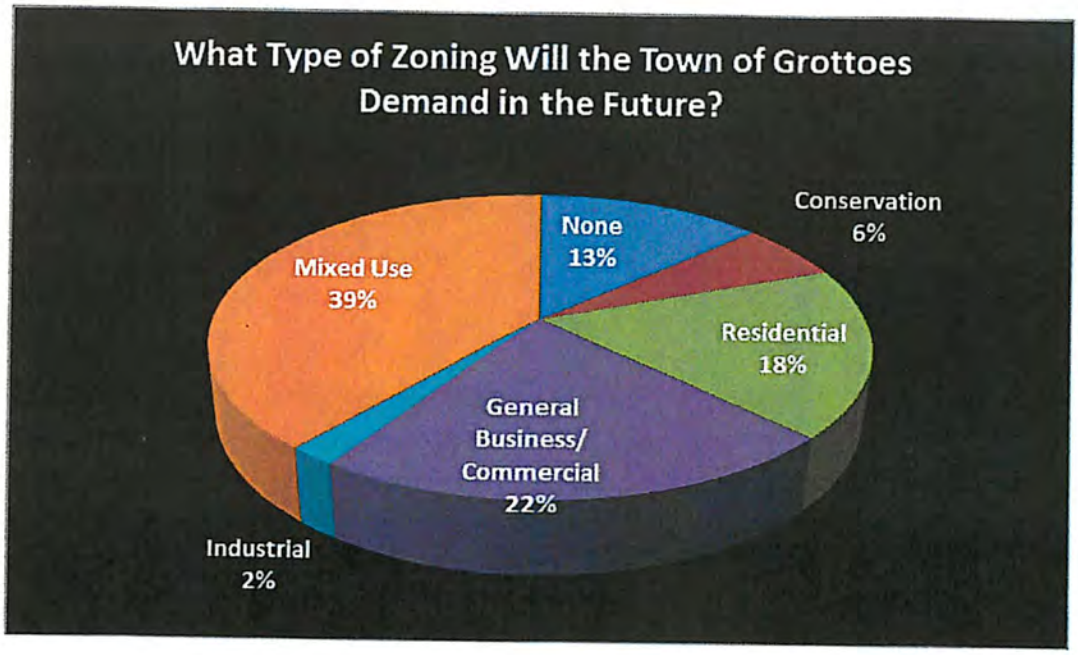
- **Top response:** 116 or 43.6 % respondents listing it as one of their choices
- **Second most response:** 81 or 30.5 % respondents listed cafes, bistros, and coffee shops
- **Third most response:** 69 or 25.9 % of respondents chose gyms
-



Question 14

Question 14 asks, "What type of zoning will the Town of Grottoes demand in the future."

- **Top response:** 90 respondents or 38.6 percent stated that mixed use zoning will be a demanded in the future.
-

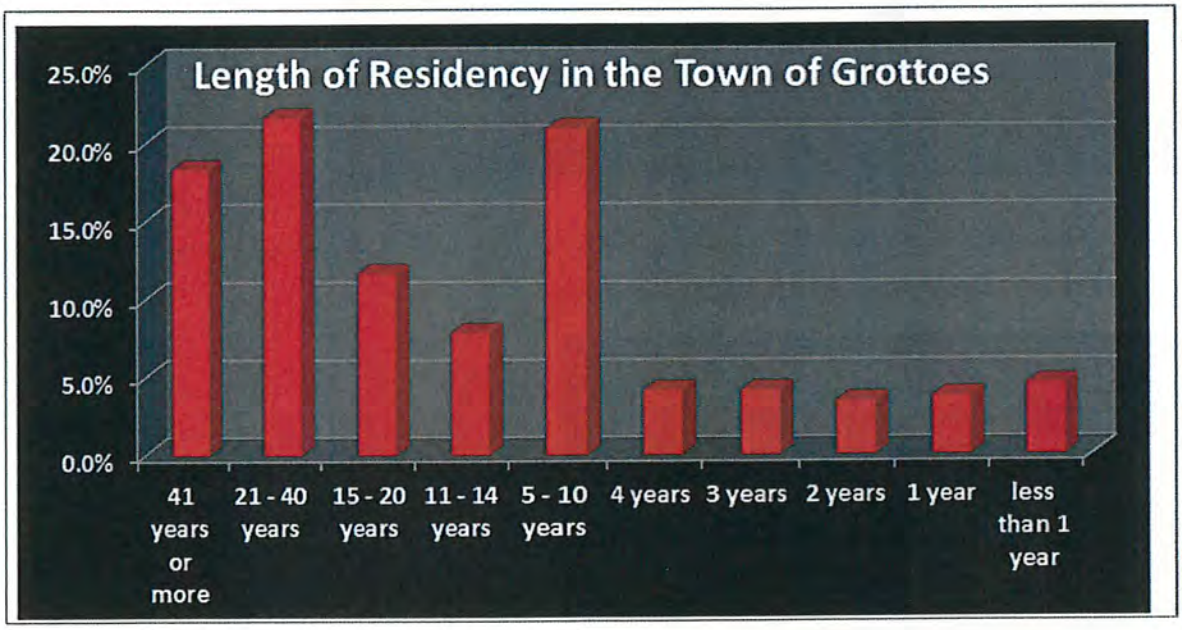


Questions 15-22 Demographic Information

Questions 15-22 asked demographic information about the respondents that returned the surveys.

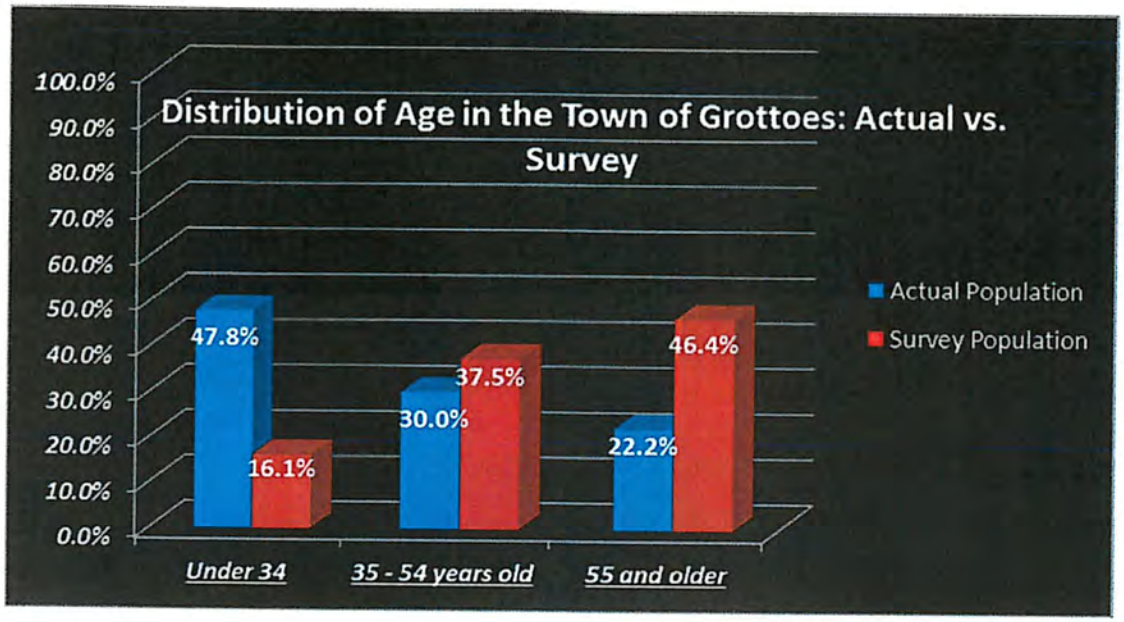
Question 15

21.6 percent of respondents in the survey have lived in the Town of Grottoes for 21-40 years making it the largest group of those that responded to the survey. The second largest group was from individuals that lived in the Town from 5-10 years, 20.9 percent. The third largest group of individuals that lived in the Town of Grottoes was individuals that lived there 4 years or more, 18.3 percent.



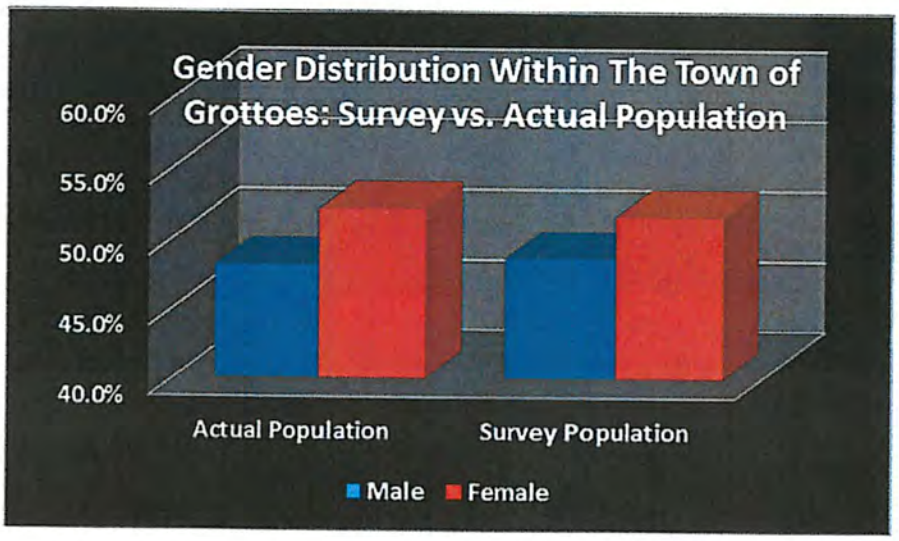
Question 16

28.5 percent of the respondents that returned the survey were 65 years of age or older. 37.4 percent of the respondents were between the ages of 35-54 with 18.7 percent of each group responding to the questionnaire. 18 percent of the respondents were between the ages of 55-65. 15.7 percent were between the ages of 35-34.



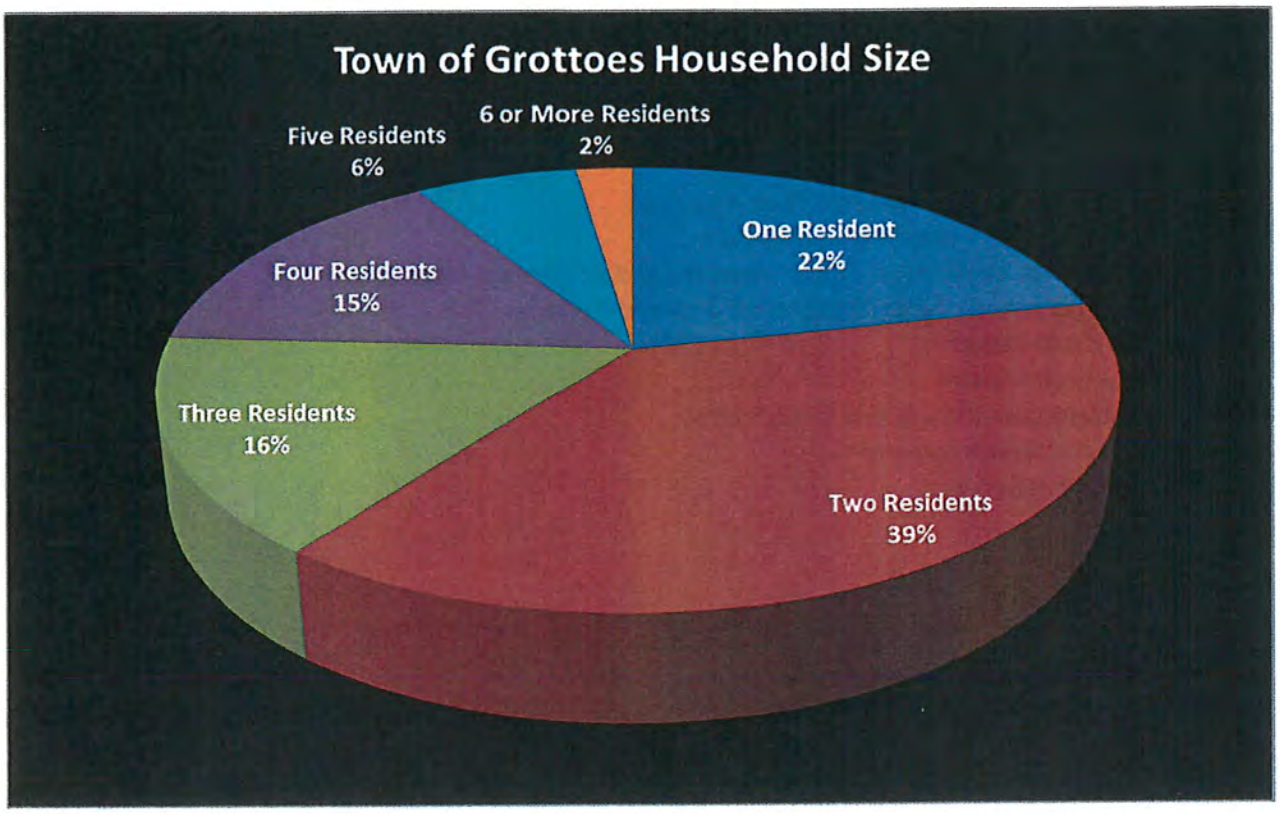
Question 17

51.5 percent of the respondents were female and 48.5 percent were male.



Question 18

38.6 percent of the households in the survey were 2 person households, 21.7 percent live alone, 15.7 percent have 3 in the household, 15.4 percent have 4, 6.4 percent have 5, and 2.2 percent have 6 or more.



Question 19

Question 19 asked citizens what they "like MOST about living in the Town of Grottoes."
Common Themes found were (listed in descending frequency:

- Quiet Town
- Positive Police Presence
- Country Living
- Safe
- Beautiful
- Caverns
- Walking Trails

Question 20

Question 20 asked citizens what they "like LEAST about living in the Town of Grottoes."
Common Themes found were (listed in descending frequency):

- Being Taxed Twice (County and Town)
- Over Policed
- Devoid of activities
- Lack of Restaurants & Stores
- Speeding
- Suspicion and General Unhappiness of Government and Administration
- Roaming Cats and other Domesticated Animals

- Dilapidated Housing and Business Structures

Question 21

Question 20 asked citizens what additional comments they may have.
Common Themes found were (listed in descending frequency):

- Frustration with Government Employees, Public Servants, and Emergency Responders
- Satisfaction and feelings of well-being by living in the Town of Grottoes
- Unhappiness with Vacant Buildings
- Double Taxation (County and Town)
- Need for more restaurants (particularly fast food chains)
- Need for more visitation at Grand Caverns
- Happiness with Government Services

Section 6.2: References

1. "Town of Grottoes - Home." *Town of Grottoes - Home*. N.p., n.d. Web. 07 Dec. 2013.
2. U.S. Census Bureau; "American FactFinder" <http://factfinder2.census.gov>; (October 17th, 2013)
3. Bailey, C.M. "Physiographic Map of Virginia." web.wm.edu. William and Mary – Valley & Ridge province, The Geology of Virginia. http://web.wm.edu/geology/virginia/provinces/phys_regions.html#valley_ridge
4. United States Dept. of the Interior – U.S. Geological Survey, 7.5-Minute Series Topographic Maps, Scale 1:24,000. Grottoes, VA, http://store.usgs.gov/b2c_usgs/usgs/maplocator/(ctype=areaDetails&xcm=r3standardpitrex_prd&carea=%24ROOT&layout=6_1_61_48&uiarea=2)/.do
5. Southeast Regional Climate Center – The University of North Carolina Chapel Hill, NC. (2012). Period of Record Monthly Climate Summary, 1893 – 2012. Dale Enterprise, VA [producer]. Web. http://www.sercc.com/cgi-bin/sercc/cliMAIN.pl?va2208, September 29, 2013.
6. "Geology of the Cave – Grand Caverns," last modified 2013, http://www.grandcaverns.com/v.php?pg=49.
7. UVRPA, "The Story of Cave Hill", 2nd Edition, 2010
8. Brent, William, Geology and Mineral Resources of Rockingham County – Bulletin 76(Commonwealth of Virginia – Department of Conservation and Economic Development – Division of Mineral Resources: Charlottesville, VA, 1960). Page 8. accessed October 18th 2013. http://www.dmme.virginia.gov/commercedocs/BUL_76.pdf.
9. Source: Rockingham County GIS, Department of Community Development. "Interactive GIS Mapping, Rockingham County – Grottoes Flood Plains." Updated September 16, 2013. http://rockingham.gisbrowser.com/viewer.htm?Title=Rockingham%20County%3A%20Online%20GIS.
10. "Blue Ridge Skyline Parkway Drive." *Blue Ridge Skyline Parkway Drive*. N.p., n.d. Web. 07 Dec. 2013.
11. "Town of Grottoes - Grand Caverns." *Town of Grottoes - Grand Caverns*. N.p., n.d. Web. 07 Dec. 2013.
12. "Grottoes Restaurants." *Restaurants in Grottoes, Virginia with Reviews & Ratings*. N.p., n.d. Web. 07 Dec. 2013.
13. "Google." *Google*. N.p., n.d. Web. 06 Dec. 2013.
14. " Dec.13-15." *Harrisonburg Downtown Renaissance*. N.p., n.d. Web. 07 Dec. 2013.
15. Commission, C. o. (2012, June 11). Comprehensive Plan of the City of Salem. Salem, Virginia.
16. "Topographic Map of the Battlefield of Port Republic". (1862). *Civil War Trust*. N.p., n.d. Web. 07 Dec. 2013.
17. Commission, L. P. (2013). *Luray Town Plan*. Luray, Virginia.
18. Craig, Swartz D. N. (2012, February). Economic Development Plan. Elkton, Virginia.
19. "Plan the Perfect Trip." *Reviews of Hotels, Flights and Vacation Rentals*. N.p., n.d. Web. 04 Dec. 2013. (Image of Restaurant in Grottoes)
20. *PUAD 560 class. James Madison University Grottoes Site Visit* on November 13th 2013: Tom Scanlon, Nicole Evans, Jack Slye.
21. PUAD 560 class. James Madison University Grottoes Resident Opinion Survey: Ashliegh Krick, AJ Good, Alan Jones
22. "Smoke Hole Caverns." *Smoke Hole Resort Lodging and Caverns in Seneca Rocks, West Virginia*. N.p., n.d. Web. 07 Dec. 2013.
23. "Media and Public Relations." *» Tourism Boost*. N.p., n.d. Web. 07 Dec. 2013.
24. "About Staunton." , *Staunton VA, Shenandoah Valley, City Manager Form of Government, Lady Staunton, ICMA*. N.p., n.d. Web. 07 Dec. 2013.
25. "GoLookOn.com." *GoLookOn.com*. N.p., n.d. Web. 07 Dec. 2013.
26. "Food Lion." *Food Lion*. N.p., n.d. Web. 07 Dec. 2013.
27. "Grottoes Town Ordinances" Town of Grottoes: Class Reference Sheet. (Distributed by Dr.Nicholas Swartz). Accessed November 18th 2013

28. "Blight Evaluation". Local Assistance Group. Accessed November 30th 2013; Jack Slye, Meade Stone, David Good.
29. "GrantSpace." *GrantSpace*. N.p., n.d. Web. 07 Dec. 2013.
30. "System Maintenance & Planned Outages | GRANTS.GOV." *System Maintenance & Planned Outages | GRANTS.GOV*. N.p., n.d. Web. 07 Dec. 2013.
31. "James Madison University." *JMU*. N.p., n.d. Web. 07 Dec. 2013.
32. "Grand Caverns Tour." *Grand Caverns.* http://www.grandcaverns.com/v.php?pg=66
33. "Virginia Birding and Wildlife Trail." *Virginia Department of Game and Inland Fisheries*. http://www.dgif.virginia.gov/vbwt/site.asp?trail=2&loop=MLS&site=MLS07
34. "Grottoes Branch Library." *Massanutten Regional Library*. Massanutten Regional Library, 2013. Web. 18 Oct. 2013. <http://www.mrlib.org/LocationsHours/GrottoesBranchLibrary.aspx>
35. "Massanutten Regional Library." Brochure. mrlib.org.
36. "2013 Outstanding EMS Agency Winner." *Central Shenandoah EMS Council*. CSEMS, 2013. Web. 19 Oct. 2013. <http://www.csems.org/agencies/awards/outstanding-ems-agency/grottoes2013/>.
37. "Welcome to Law Enforcement Publications." *Law Enforcement Publications*. Law Enforcement Publications, 2013. Web. 18 Oct. 2013. <https://lepcalendars.com/>.
38. "Grottoes Rescue Squad Inc." *Grottoes Rescue Squad*. Grottoes Rescue Squad Inc., 31 Aug. 2013. Web. 20 Oct. 2013. <http://www.rescue20.com/home.html>.
39. "About EMS." *Eastern Mennonite University*. http://www.emu.edu
40. "About JMU." *James Madison University*. http://www.jmu.edu/about/rankings-and-recognitions.shtml
41. "About MCB." *Mary Baldwin College. http://www.mbc.edu/about/*
42. "About RCPS." *Rockingham County Public Schools*. Web. 19 Oct. 2013. <http://www.rockingham.k12.va.us/aboutRCPS.html>.
43. "Bridgewater College." *Bridgewater College*. http://www.bridgewater.edu
44. "SRES History." *South River Elementary School*. SRS Solutions 2013. Web. 19 Oct. 2013. <http://blogs.rockingham.k12.va.us/sres/>
45. "Title I." *Rockingham County Public Schools*. 2013. Web. 19 Oct. 2013. <http://blogs.rockingham.k12.va.us/title1/>
46. "Montevideo Middle School." *Trulia*. 2013. Web. 19 Oct. 2013. <http://www.trulia.com/schools/VA-Penn_Laird/Montevideo_Middle_School/>
47. "About MMS." *Montevideo Middle School*. World Press 2013. Web. 19 Oct. 2013. <http://blogs.rockingham.k12.va.us/mms/about/>
48. "School Profile." *Spotswood High School*. Web Press 2013. Web. 19 Oct. 2013.
49. <http://blogs.rockingham.k12.va.us/shs/guidance/school-profile/>.
50. "About MTC." *Massanutten Technical Center*. Blue Key 2012. Web. 19 Oct. 2013. <http://www.mtcva.com/About.aspx>.
51. "Harrisonburg Virginia Campus." *National College*. 2013. Web. 19 Oct. 2013.
52. <http://www.national-college.edu/locations/harrisonburg_va/>.
53. "About BRCC." *Blue Ridge Community College*. 2013. Web. 19 Oct. 2013. <http://www.brcc.edu>
54. "American FactFinder - Results ." American FactFinder - Results . 2011. Accessed December 01, 2013. http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_11_5YR_DP04.
55. "Section 13. Conducting Surveys." *Main Section*. N.p., n.d. Web. 06 Feb. 2014.