

Impact Fee Program



City of Senoia Georgia

Including the following
public facility categories:

Police Facilities
Parks and Recreation

Methodology Report

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ROSS+associates

urban planning & plan implementation

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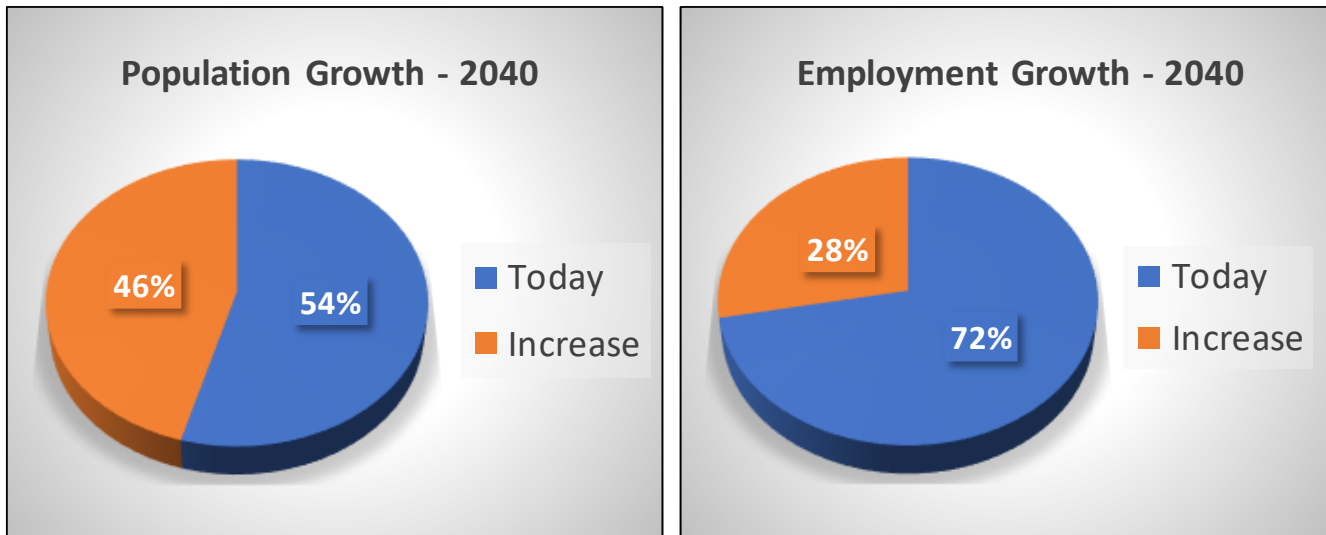


Looking Ahead

Over the coming 20 years, Senoia is projected to continue its previous rate of population growth, fully recovering from the lingering effects of the Great Recession. Over all, the city is expected to add more than 3,800 people to its current population of 4,548, a number that is almost 84% of today’s population.

Employment in the city is also projected to continue at a steady pace. The number of ‘value-added’ employees¹ are projected to increase by 391, such that in 2040, 28% of all jobs will be new additions.

Forecasts indicate major growth ahead for Senoia as people continue to move into the city and attract increases in jobs and services. Over the next 20 years to 2040, it is expected that a little less than half of the people that will be living in Senoia then are not here today. This 46% of the 2040 total population equates to an almost 84% increase over the population living in the city now, accompanied by a similar increase in housing units. Employment will also increase, though not to the extent of population growth. By 2040, the total number of ‘value added’ jobs in the city will be home to 28% new businesses, which reflects a 39% increase over the number today.



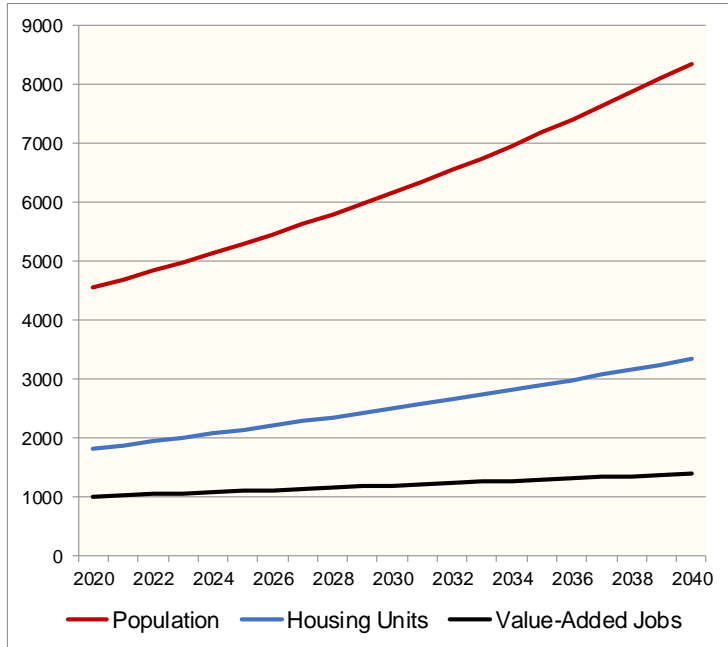
■ Population and Housing Outlook

These future increases in population and housing are not as unprecedented as it may seem. Looking back over the past 19 years, since 2000 the city’s population grew from 1,719 to 4,412—an overall increase of almost 60%. During the halcyon decade of 2000-2010, the city’s population increased by 1,588, which dropped to a total of 1,025 new residents during the nine years since 2010. Full recovery from the Great Recession is anticipated, however, with the return to the city’s historic population growth over the coming 20 years.

¹ ‘Value-added jobs’ are those working in businesses that would be subject to impact fees and thus exclude the types of jobs that would not be associated with an impact fee (such as farm workers, itinerant construction workers and governmental employees).

Forecasts of Future Growth

	Population	Housing Units	Value-Added Jobs
2020	4,548	1,806	1,005
2021	4,689	1,873	1,024
2022	4,834	1,940	1,043
2023	4,983	2,006	1,062
2024	5,137	2,073	1,081
2025	5,296	2,141	1,100
2026	5,460	2,212	1,118
2027	5,629	2,282	1,137
2028	5,802	2,353	1,156
2029	5,982	2,427	1,175
2030	6,167	2,501	1,194
2031	6,357	2,577	1,214
2032	6,554	2,654	1,234
2033	6,756	2,733	1,255
2034	6,965	2,814	1,275
2035	7,180	2,896	1,295
2036	7,402	2,982	1,315
2037	7,631	3,069	1,335
2038	7,867	3,158	1,356
2039	8,110	3,252	1,376
2040	8,361	3,347	1,396



	Population	Housing Units	Value-Added Jobs
2020	4,548	1,806	1,005
2040	8,361	3,347	1,396
Increase	3,813	1,541	391
Growth	83.8%	85.3%	38.9%

Note: Value-Added Jobs exclude outdoor (non-building based) farm, forestry, mining and construction workers, and government employees.

■ Increased Job Opportunities

Not as robust as population growth, the nonresidential growth forecast indicates an increase in the number of private-sector jobs such that, by 2040, more than 1 in 4 jobs (28%) will be new to the city. Compared to today’s ‘value-added’ employment of 1,005, new jobs will have increased by 391— a 38.9% increase over the number of today’s workers.

Numerically, the city is projected to add the largest number of new jobs in administrative positions (95, a 67% increase over 2020) followed closely by the accommodation and food services category (91, a 72% increase) and finance & insurance (61, a 70% increase). Together, these three categories will account for almost two-thirds (63%) of all new jobs added over the coming 20 years.

Proportionally, the greatest increases are expected in the health care & social assistance category (124%, adding 47 new jobs) followed by professional & technical services (79%, adding 11 new jobs). Notably, the catch-all category of ‘other private services’ will more than double (a 103% increase) adding 37 new jobs.

What this residential and business growth means is that Senoia will be called upon to expand its services and infrastructure if it is to maintain the quality of life and business environment enjoyed by its residents and workers today. Failing to keep up will bring an erosion of the lifestyles and employment opportunities that attract new growth and investment tomorrow and that the population enjoys today.

Introduction

An impact fee is a FEE, not a tax. With taxes—like property taxes and sales taxes—there is no direct relationship between the taxes one pays and the return—the services—that each taxpayer receives. Everyone pays school taxes based on the value of their property, regardless of whether they have one kid in school, six kids in school or no kids at all. A fee, on the other hand, must be related to the service being made available. For instance, only those obtaining a building permit pay the building permit fee (which covers the cost of plan reviews and approvals, and construction inspections). One's water bill is a fee because the amount is based on how much water they used. In the case of impact fees, the amount of each fee is directly related to the City's cost of making particular services available—the cost of recreation facilities, for instance.

■ Impact Fees Authorized

Impact fees are authorized in Georgia pursuant to O.C.G.A. §36-71-1 et seq., the *Georgia Development Impact Fee Act* (DIFA), and are administered by the Georgia Department of Community Affairs under Chapter 110-12-2, *Development Impact Fee Compliance Requirements*, of the Georgia Administrative Code. Under DIFA, the City can collect money from new development based on that development's proportionate share—the 'fair share'—of the cost to provide the facilities needed specifically to serve new development. This includes the categories of:

- parks, open space, and recreation areas and related facilities; and,
- public safety facilities, including police, fire, emergency medical, and rescue facilities.

Revenue for such facilities can be produced from new development in two ways: through future taxes paid by the homes and businesses that growth creates, and through an impact fee assessed as new development occurs.

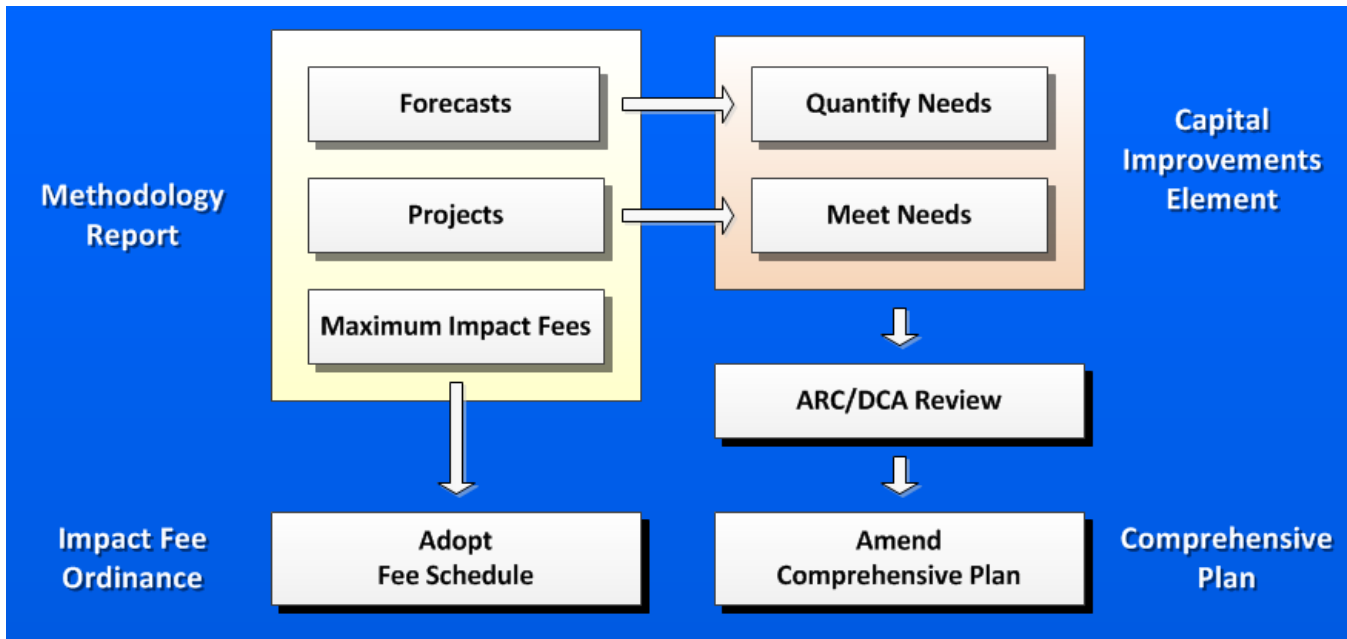
■ Focus of This Report

Under the State impact fee law, impact fees can be collected for several specific public facility categories. This report focuses on the police and the parks & recreation public facilities that will be needed to meet the demands of future growth and development while maintaining the current level of service enjoyed by residents and businesses in the city today. The key is that the capital improvement, whether it's land, buildings or long-lived vehicles, must create new capacity within the system to keep pace with the number of future residents and businesses as the city grows. Maintenance and personnel are not eligible for impact fee funding, nor would replacement of deteriorated floor space or a run-down vehicle because, although the replacement is maintaining the level of service, no new capacity is created to serve the needs of new growth.

■ Components of the Impact Fee System

The Senoia Impact Fee System consists of four components, illustrated on the diagram below:

- This **Methodology Report**, which includes:
 - updated forecasts of population, housing units and employment for the city;
 - capital improvement projects to serve new growth, based on appropriate Level of Service standards, for each public facility category; and,
 - the impact cost of new growth and development (and thus the maximum impact fees that could be assessed).
- A **Capital Improvements Element** (CIE) to implement the City's proposed improvements, including an updated Five-Year Community Work Program.
- An **Impact Fee Ordinance**, including an impact fee schedule by land use category.
- The City's **Comprehensive Plan**, which will be amended by the adoption of the CIE.



■ Cost Adjustments

Calculations related to impact fees are required by law to be made in terms of the 'present value' of past and future costs in current (2020) dollars. For future expenditures, the current cost estimate is inflated to the year when the expenditure will be made, and then is 'discounted' back to 2020 to account for the current value of future money. The Credits and Adjustments chapter of this report provides greater detail.

Three different cost inflators are used in the impact fee calculations, based on the type of project being considered. For infrastructure projects, such as recreation components, a 'construction cost inflator' is used. For projects that require construction of a structure (such as a police station), a 'building cost inflator' is used as the appropriate inflation rate. For all non-construction types of projects (such as park land), an inflation rate is used that is based on the Consumer Price Index. Ten-year average rates for these three indices are shown on the table on the right.

In all cases, the current interest rate that the City receives on its fund balances is used as the 'discount rate' for Net Present Value calculations.

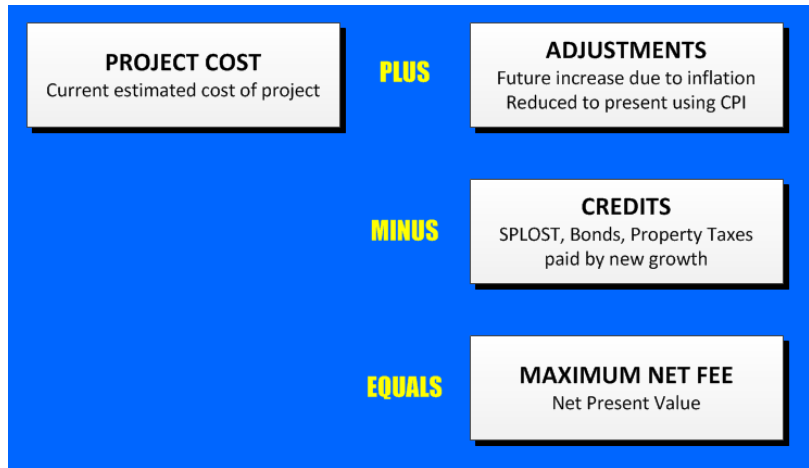
Index	10-Year Average Rate
Consumer Price Index (CPI)	1.72%
Construction Cost Index (CCI)*	1.35%
Building Cost Index (BCI)*	1.84%
Discount Rate**	0.005%

* Source: Engineering News Record, Average Annual Indices 2009-2019.

**Avg annual return at prevailing interest rate.

Fee Calculations

Calculating an impact fee involves several operations. These include determining the current cost estimate of each capital expenditure, the determination of that future cost in 2020 dollars using appropriate inflation factors, and the subtraction of credits (if any) for property taxes to avoid double taxation. In this report, the maximum allowable impact fee has been calculated for each public facility category to establish the 'ceiling' allowed under Georgia law.



Editorial Conventions

This report observes the following conventions:

The capitalized word 'City' applies to the government of Senoia, the City Council or any of its departments or officials, as appropriate to the context. An example is "the City has adopted an impact fee ordinance".

The lower-case word 'city' refers to the geographical area of Senoia, as in "the population of the city has grown".

Single quote marks (' and ') are used to highlight a word or phrase that has a particular meaning or refers to a heading in a table.

Double quote marks (" and ") are used to set off a word or phrase that is a direct quote taken from another source, such as a passage or requirement copied directly from a law or report.

Numbers shown on tables are often rounded from the actual calculation of the figures for clarity, but the actual calculated number of decimal points is retained within the table for accuracy and further calculations.

Creating the Impact Fee Program

This Methodology Report presents the methodologies used to determine new development's fair share of the City's investment in law enforcement and parks and recreation capital facilities. This report establishes clear public policies regarding infrastructure development and ensures sound fiscal planning for capital improvements. The report identifies the need for new facilities and includes a compilation of the capital facilities on which impact fee revenue can be spent. The calculations and information contained in this Methodology Report, repeated (as applicable) for each category of public facility for which an impact fee will be charged, are:

- a **projection of needs** for the twenty-year planning period—2020 to 2040;
- the designation of **service areas**—the geographic area in which a defined set of public facilities provide service to development within the area;
- the designation of **levels of service** (LOS)—the service level that is being and will be provided;
- a **schedule of projects** listing impact fee related costs for the twenty-year planning period;
- a description of **funding sources** for the twenty-year planning period;
- The calculation of the **cost impact** of new development, credits, and impact fees; and
- A schedule of **maximum impact fees** that could be adopted, by land use category.

An additional document required for the collection of impact fees is called the Capital Improvements Element (CIE), and is adopted as a chapter, or 'element', in the City's Comprehensive Plan. As defined by the State's Department of Community Affairs, the CIE must include certain calculations and information, which will be drawn from this Methodology Report as applicable.

■ Investment Recovery

The Georgia Development Impact Fee Act permits recovery by a local government of the cost of providing an improvement that serves new growth and development, even though that cost may have been incurred prior to the adoption of an impact fee ordinance. As with all impact fees, the cost of the portion of the facility meeting current needs must be borne by the locality (i.e., existing taxpayers), with future development being assessed only for the excess capacity that has been made available to serve that future growth in accordance with level of service standards that apply equally to both existing and future development.

Because the amount of dollars eligible to be recovered through an impact fee is based on the capacity available to support future growth and development within the whole system, a value for the existing system must be determined if excess capacity exists.

■ Categories for Assessment of Impact Fees

To assist in paying for the high costs of expanding public facilities and services to meet the needs of projected growth and to ensure that new development pays a reasonable share of the costs of public facilities, Senoia is updating its study of the impact of impact fees for law enforcement and parks & recreation. The chapters in this Methodology Report provide population and employment forecasts and detailed information regarding the inventory of current facilities, the level of service, and detailed calculations of the impact cost for the specific public facilities, as appropriate to the calculations.

■ Monitoring Change

A number of the factors that form the base-line assumptions in this report's impact cost calculations may change over time. The impact fee methodologies for the public facilities categories should be reviewed periodically, and should reflect changes in the growth and development of the city. Also, the fiscal elements of the impact fee system should be brought up to 'current' dollars to account for inflation.

- The 'planning horizon' of this methodology report is 2040, covering a twenty-year time span. When the City's *Comprehensive Plan* is again updated, the methodology report (and impact fee methodologies) should be considered for updating if needed and the horizon extended to 2045.
- The amount of future tax revenue generated by future growth is directly related to the City's population and employment projections. These projections should be reviewed periodically against other data, such as building permits and utility hook-ups, to confirm continuing validity or to modify the methodologies.
- Costs should be maintained in net present value terms. The land and equipment costs for public safety facilities and parks should be updated as costs rise.
- Projections in tax base growth should be updated to reflect actual growth, and to update the average new house values and value/employee then current in future years, if needed.
- Any changes in funding strategy for the facilities included in the impact fee program should be reflected in the impact fee calculation.

Changes in the pace of development will affect the timing of service delivery but not, per se, the methodology used to calculate the impact costs. If more residential and business development is built than was projected, facilities will be needed sooner to meet the level of service standard. Tax revenues will increase faster than projected as growth accelerates and more impact fees will be collected. In this way, more funds are produced to provide the services demanded. If growth slows, the opposite occurs: reduced revenue and lowered demand for services.

■ Reductions in Impact Fee Assessments

Because the state law provides that new growth and development cannot be charged more than their fair proportionate share of the costs of the capital improvements needed to serve it, this Methodology Report calculates the maximum that could be charged as an impact fee in order to establish the 'ceiling' above which the City cannot go. There are, however, several ways that a lower impact fee could be charged, either for a specific project, across the board for all projects, or for a group of specific land use categories that are of special benefit to the City. These are discussed below.

Individual Fee Assessment

A landowner or developer may request an individual assessment when the average figures used in this Methodology Report do not apply to the specific project being proposed. This individual assessment determination will be made preferentially on alternate data available regarding the number of housing units or employment characteristics of the specific project, as applicable. Under the appeal procedures of the Development Impact Fee Ordinance, special circumstances can be considered and approved in modifying the fee for a particular project demonstrably differing from the average values used in this methodology.

Adoption of Reduced Impact Fees

As noted, the fee schedule shows the **maximum** impact fee that could be adopted under State law. The City may adopt the maximum fee for any given public facility category, or could adopt a lower fee, as part of the Impact Fee Ordinance. In order to fulfill DIFA's requirement that new growth pay its fair, proportionate share, all fees in a particular public facility category could be reduced proportionally (that is, by the same percentage), but individual land use categories within the particular public facility category cannot be individually reduced or deleted.

Individual Appeals

The Impact Fee Ordinance provides for the appeal by anyone assessed an impact fee, first to the Impact Fee Administrator and then, if not resolved, to the City Council.

Exemptions

Exemptions from the established impact fee amounts on the adopted Impact Fee Schedule can be adopted by the City Council for development that represents 'extraordinary economic or employment growth' or 'affordable housing'. The exemptions must be spelled out as part of the Impact Fee Ordinance and can be applied by the City Council in whole or in part to specified uses based on standards included in the Ordinance or adopted pursuant to the Ordinance provisions.

■ Limitations on Impact Fees

There are several requirements placed on impact fees by the Georgia Development Impact Fee Act and the rules and regulations of the Georgia Department of Community Affairs. These include:

- Impact fees must be spent in the same public facility category for which they were collected.
- Impact fees must be deposited into an interest-bearing account.
- Impact fees not spent or encumbered within 6 years must be refunded to the fee payer, with interest.
- The same Level of Service must be applied to both the existing population and to new growth.
- All calculations must be made in Net Present Value.
- Annual Financial Reporting and the five-year Community Work Program Update required.

Maximum Impact Fee Schedule

The fee schedule starting on this page shows the maximum impact fee that could be charged for each public facility in Senoia by the specific land use categories shown. The land use categories are the most common uses identified in the *Trip Generation Manual*, 9th Edition, Institute of Transportation Engineers (ITE); the ITE designation is shown in the left-hand column.

The maximum total impact fee shown for each public facility category is drawn from that public facility category’s chapter and reflects the reductions for any applicable credits. The maximum total fees include a 3% fee for administration of the Impact Fee Program and a fee for preparation of the Capital Improvements Element, as allowed by the State impact fee law.

To read the Maximum Impact Fee Schedule, first find the land use you want to investigate. Land uses are listed on the left side of the table, and are grouped into categories. For example, all retail uses are grouped together. Next, find the Maximum Total Impact Fee figure. This is the total impact fee per unit of measure. Finally, find the unit of measure—it is the last column of the land use category. The information can be read as follows: *this land use has a maximum impact fee of \$X per unit of measure.*

Table 1: Maximum Impact Fee Schedule

ITE Code	Land Use	Parks and Recreation	Law Enforcement	Maximum Total Fee per Unit	Unit of Measure
<i>Residential (200-299)</i>					
210	Single-Family Detached Housing	\$ 1,732.94	\$ 1,661.10	\$ 3,394.04	per dwelling
220	Apartment	\$ 1,732.94	\$ 1,661.10	\$ 3,394.04	per dwelling
230	Residential Condominium/Townhouse	\$ 1,732.94	\$ 1,661.10	\$ 3,394.04	per dwelling
<i>Port and Terminal (000-099)</i>					
030	Intermodal Truck Terminal		\$ 0.95	\$ 0.95	per square foot
<i>Industrial/Agricultural (100-199)</i>					
110	General Light Industrial		\$ 1.55	\$ 1.55	per square foot
120	General Heavy Industrial		\$ 1.23	\$ 1.23	per square foot
140	Manufacturing		\$ 1.20	\$ 1.20	per square foot
150	Warehousing		\$ 0.61	\$ 0.61	per square foot
151	Mini-Warehouse		\$ 0.05	\$ 0.05	per square foot
152	High-Cube Warehouse		\$ 0.05	\$ 0.05	per square foot

Maximum Impact Fee Schedule continued

ITE Code	Land Use	Parks and Recreation	Law Enforcement	Maximum Total Fee per Unit	Unit of Measure
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Lodging (300-399)

310	Hotel or Conference Motel		\$ 382.48	\$ 382.48	per room
311	All Suites Hotel		\$ 335.66	\$ 335.66	per room
320	Motel		\$ 295.05	\$ 295.05	per room

Recreational (400-499)

430	Golf Course		\$ 164.89	\$ 164.89	per acre
437	Bowling Alley		\$ 0.67	\$ 0.67	per square foot
443	Movie Theater		\$ 0.99	\$ 0.99	per square foot
460	Arena		\$ 2,237.54	\$ 2,237.54	per acre
480	Amusement Park		\$ 6,105.63	\$ 6,105.63	per acre
490	Tennis Courts		\$ 163.73	\$ 163.73	per acre
491	Racquet/Tennis Club		\$ 0.21	\$ 0.21	per square foot
492	Health/Fitness Center		\$ 0.47	\$ 0.47	per square foot
495	Recreational Community Center		\$ 0.83	\$ 0.83	per square foot

Institutional (500-599)

520	Private Elementary School		\$ 0.66	\$ 0.66	per square foot
530	Private High School		\$ 0.44	\$ 0.44	per square foot
560	Church/Place of Worship		\$ 0.23	\$ 0.23	per square foot
565	Day Care Center		\$ 1.89	\$ 1.89	per square foot
566	Cemetery		\$ 54.66	\$ 54.66	per acre

Medical (600-699)

610	Hospital		\$ 1.97	\$ 1.97	per square foot
620	Nursing Home		\$ 1.57	\$ 1.57	per square foot
630	Clinic		\$ 2.64	\$ 2.64	per square foot

Maximum Impact Fee Schedule continued

ITE Code	Land Use	Parks and Recreation	Law Enforcement	Maximum Total Fee per Unit	Unit of Measure
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Office (700-799)

710	General Office Building		\$ 2.23	\$ 2.23	per square foot
714	Corporate Headquarters Building		\$ 2.30	\$ 2.30	per square foot
715	Single-Tenant Office Building		\$ 2.11	\$ 2.11	per square foot
720	Medical-Dental Office Building		\$ 2.72	\$ 2.72	per square foot
760	Research and Development Center		\$ 1.97	\$ 1.97	per square foot
770	Business Park		\$ 2.07	\$ 2.07	per square foot

Retail (800-899)

812	Building Materials and Lumber Store		\$ 0.94	\$ 0.94	per square foot
813	Free-Standing Discount Superstore		\$ 0.64	\$ 0.64	per square foot
814	Variety Store		\$ 0.64	\$ 0.64	per square foot
815	Free-Standing Discount Store		\$ 1.33	\$ 1.33	per square foot
816	Hardware/Paint Store		\$ 0.65	\$ 0.65	per square foot
817	Nursery (Garden Center)		\$ 2.09	\$ 2.09	per square foot
818	Nursery (Wholesale)		\$ 1.12	\$ 1.12	per square foot
820	Shopping Center		\$ 1.12	\$ 1.12	per square foot
823	Factory Outlet Center		\$ 1.12	\$ 1.12	per square foot
826	Specialty Retail Center		\$ 1.33	\$ 1.33	per square foot
841	Automobile Sales		\$ 1.03	\$ 1.03	per square foot
843	Auto Parts Store		\$ 0.64	\$ 0.64	per square foot
848	Tire Store		\$ 0.86	\$ 0.86	per square foot
849	Tire Superstore		\$ 0.86	\$ 0.86	per square foot
850	Supermarket		\$ 0.78	\$ 0.78	per square foot
851	Convenience Market (Open 24 Hours)		\$ 1.21	\$ 1.21	per square foot
853	Convenience Market with Gasoline Pumps		\$ 1.21	\$ 1.21	per square foot
854	Discount Supermarket		\$ 1.51	\$ 1.51	per square foot

Maximum Impact Fee Schedule continued

ITE Code	Land Use	Parks and Recreation	Law Enforcement	Maximum Total Fee per Unit	Unit of Measure
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Retail (800-899) continued

860	Wholesale Market		\$ 0.55	\$ 0.55	per square foot
861	Discount Club		\$ 0.87	\$ 0.87	per square foot
862	Home Improvement Superstore		\$ 0.64	\$ 0.64	per square foot
863	Electronics Superstore		\$ 0.64	\$ 0.64	per square foot
870	Apparel Store		\$ 1.12	\$ 1.12	per square foot
875	Department Store		\$ 1.33	\$ 1.33	per square foot
880	Pharmacy/Drugstore		\$ 1.12	\$ 1.12	per square foot
890	Furniture Store		\$ 0.28	\$ 0.28	per square foot

Services (900-999)

912	Drive-in Bank		\$ 3.21	\$ 3.21	per square foot
931	Quality Restaurant		\$ 5.01	\$ 5.01	per square foot
932	High-Turnover (Sit-Down) Restaurant		\$ 5.01	\$ 5.01	per square foot
934	Fast-Food Restaurant		\$ 7.32	\$ 7.32	per square foot
941	Quick Lubrication Vehicle Shop		\$ 1,409.79	\$ 1,409.79	per service bay
944	Gasoline/Service Station		\$ 107.41	\$ 107.41	per pump
945	Gasoline Station w/Convenience Market		\$ 145.01	\$ 145.01	per pump
947	Self-Service Car Wash		\$ 134.27	\$ 134.27	per stall

Notes: "Square foot" means square foot of gross building floor area.

ITE Code means the land use code assigned in the *Trip Generation* manual published by the Institute of Transportation Engineers, 9th Edition.

Forecasts

In order to accurately calculate the demand for future services for Senoia, new growth and development must be quantified in future projections. These projections include forecasts for population, households, housing units, and employment to the year 2040. These projections provide the base-line conditions from which the current (2020) or future (2040) Level of Service calculations are produced.

■ Types of Projections

Accurate projections of population, households, housing units, and employment are important in that:

- Population data and forecasts are used to establish current and future demand for services where the Level of Service (LOS) standards are per capita based.
- Household data and forecasts are used to forecast future growth in the number of housing units.
- Housing unit data and forecasts relate to certain service demands that are household based, such as parks, and are used to calculate impact costs when the cost is assessed when a building permit is issued. The number of households—defined as *occupied* housing units—is always smaller than the total supply of available housing units, which include vacant units. Over time, however, each housing unit is expected to become occupied by a household, even though the unit may become vacant during future re-sales or turnovers.
- Employment forecasts are refined to reflect ‘value added’ employment figures. This reflects an exclusion of jobs considered to be transitory or non-site specific in nature, and thus not requiring building permits to operate (i.e., are not assessed impact fees), as well as governmental uses that are not subject to impact fees.

‘Value added’ employment data is combined with population data to produce what is known as the ‘day-night population.’ These figures represent the total number of persons receiving services, both in their homes and in their businesses, to produce an accurate picture of the total number of persons that rely on certain 24-hour services, such as police protection.

The projections used for each public facility category are the citywide forecasts because both of the public facility categories—parks & recreation and law enforcement, are delivered by the City throughout the city.

■ Historic Population Growth

Every year, the US Census Bureau estimates the population in Senoia between decennial censuses (e.g., 2000 and 2010). After a decennial census, the Bureau revises the annual estimates based on the actual Census count. Unlike the decennial censuses, which are ‘as of’ April 1, the annual estimates are ‘as of’ July 1 of each year. Those annual estimates are shown in Table 2.

Table 2: Annual Census Estimated Population

Geography	Population Estimate (as of July 1)									
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Senoia	1,799	1,947	2,097	2,238	2,389	2,555	2,748	2,917	3,080	3,218

Geography	Population Estimate (as of July 1)									
	2010*	2011	2012	2013	2014	2015	2016	2017	2018	2019
Senoia	3,387	3,505	3,608	3,763	3,969	4,092	4,160	4,242	4,344	4,412

* 2010 estimate revised by Census Bureau in 2019.

Note: All data as of July 1 of each year. 2000 and 2010 estimates differ from April 1 Decennial Census counts.
 Sources: For 2000 to 2009: Intercensal Estimates 2000-2010, US Bureau of the Census. 2010 to 2019: Census Annual Estimates Program, US Bureau of the Census.

Based on the city’s perseverance during the Great Recession and its anticipated continuing growth in the housing market, the future is bright for Senoia. That is not to say that population growth in each of the past two decades has been smooth.

While Senoia posted a percentage increase in population between 2000 and 2019 overall (59.22%), growth from 2000 to 2010 registered a higher growth increase (46.89%) than the more recent 2010-2019 period (23.23%). Comparing the recent 9-year period to the previous 10-year period is not enough to explain the difference. Clearly the Great Recession, which began in mid-2008, had a notable impact on the housing industry and then the economy in general, affected the city as well.

Table 3: Population Growth by Decade

	2000-2010 Increase	Percent	2010-2019 Increase	Percent	2000-2019 Increase	Percent
Population Increase	1,588	46.89%	1,025	23.23%	2,613	59.22%
Average Annual Increase	158.80	10.00%	113.89	11.11%	137.53	5.26%

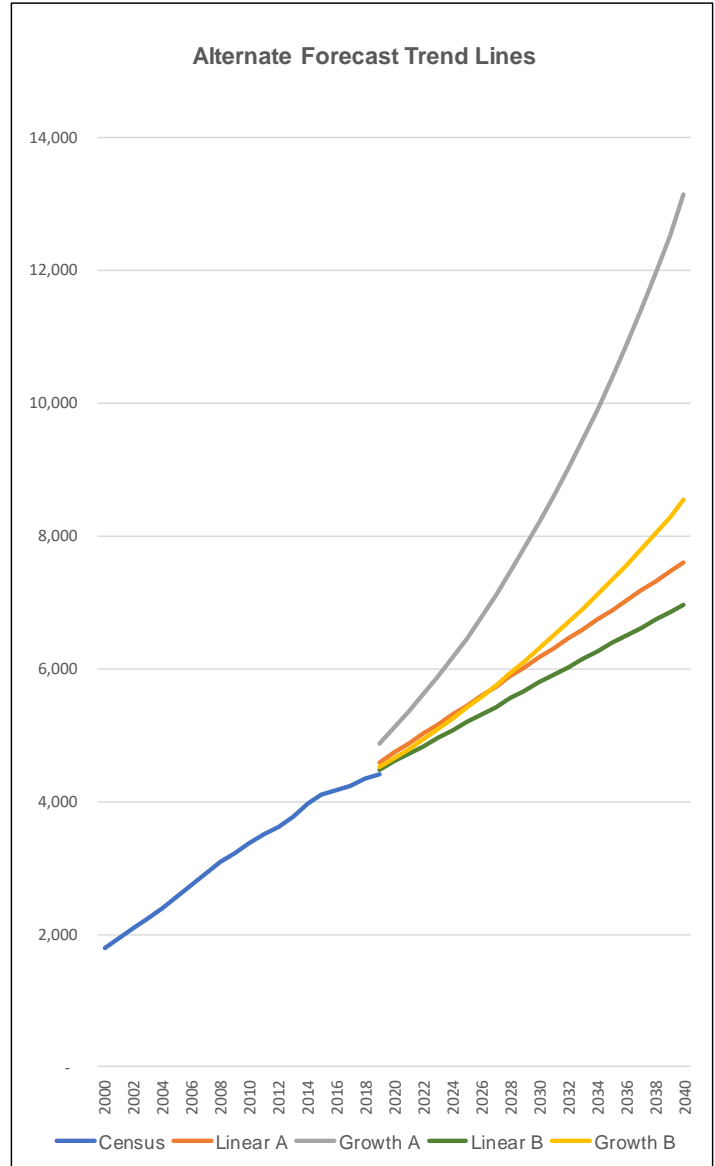
Reviewing the annual population estimates by the Census Bureau shown on Table 2, the annual percentage increase in population from 2000 through 2007 averaged 7.15% (from a high of 8.23% to a low of 6.15%). Reflecting the full impact of the recession during 2009-2012, this dropped to an average increase of only 4.04%.

Population Forecasts

Two forecast methods were used to project the city’s past population growth forward to 2040, one using a ‘linear trend’ (straight line) and the other a ‘growth trend’ (curved line) forecast algorithm. Table 4 shows the results using both the Census estimates for 2000-2019 and the nearer term estimates for 2010-2019. The raw numbers of each projection method are shown.

Table 4: Alternate Population Forecasts, 2000-2040

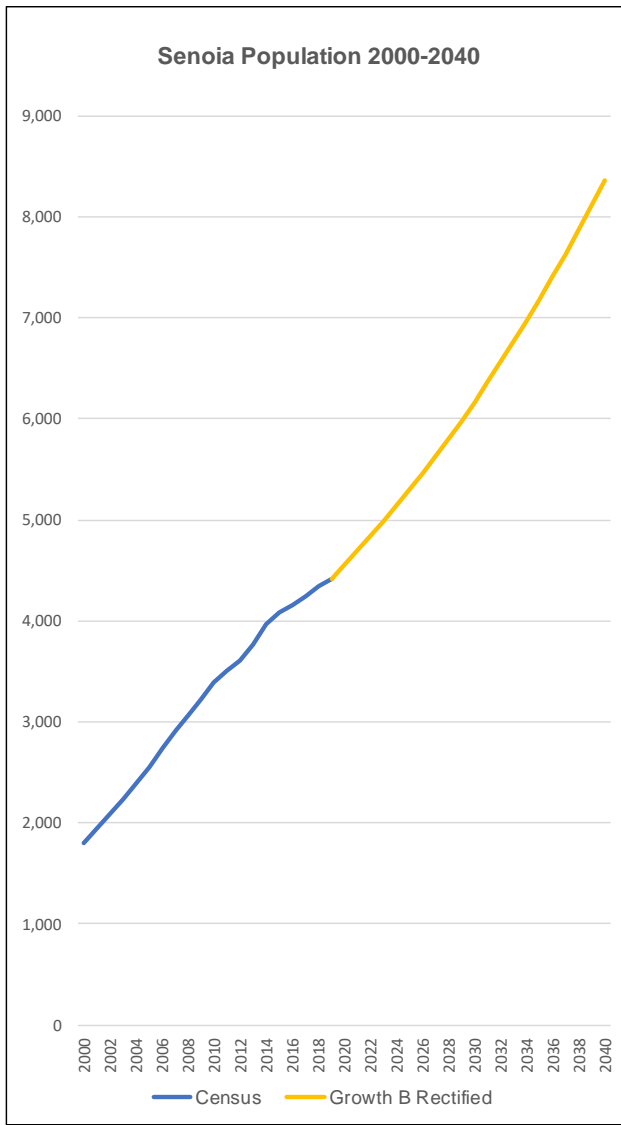
	Census	2000-2019		2010-2019	
		Linear A	Growth A	Linear B	Growth B
2000	1,799	1,859	1,983		
2001	1,947	2,003	2,079		
2002	2,097	2,146	2,180		
2003	2,238	2,290	2,285		
2004	2,389	2,434	2,396		
2005	2,555	2,577	2,512		
2006	2,748	2,721	2,634		
2007	2,917	2,864	2,761		
2008	3,080	3,008	2,895		
2009	3,218	3,152	3,035		
2010	3,387	3,295	3,182	3,414	3,429
2011	3,505	3,439	3,336	3,533	3,535
2012	3,608	3,583	3,498	3,652	3,645
2013	3,763	3,726	3,667	3,770	3,757
2014	3,969	3,870	3,845	3,889	3,873
2015	4,092	4,013	4,031	4,008	3,993
2016	4,160	4,157	4,226	4,126	4,117
2017	4,242	4,301	4,431	4,245	4,244
2018	4,344	4,444	4,645	4,364	4,375
2019	4,412	4,588	4,870	4,482	4,510
2020		4,732	5,106	4,601	4,650
2021		4,875	5,353	4,720	4,793
2022		5,019	5,613	4,838	4,941
2023		5,162	5,885	4,957	5,094
2024		5,306	6,170	5,076	5,252
2025		5,450	6,468	5,194	5,414
2026		5,593	6,782	5,313	5,581
2027		5,737	7,110	5,432	5,754
2028		5,881	7,454	5,550	5,932
2029		6,024	7,815	5,669	6,115
2030		6,168	8,194	5,788	6,304
2031		6,311	8,591	5,906	6,499
2032		6,455	9,007	6,025	6,700
2033		6,599	9,443	6,144	6,907
2034		6,742	9,900	6,262	7,120
2035		6,886	10,380	6,381	7,340
2036		7,030	10,882	6,500	7,567
2037		7,173	11,410	6,618	7,801
2038		7,317	11,962	6,737	8,042
2039		7,460	12,541	6,856	8,291
2040		7,604	13,149	6,975	8,547



Upon review the Growth B forecast best reflected the city’s recovery from the Great Recession and a continued uptake in population growth in the decades to come. The raw numbers from the projection were then rectified to the Census 2019 estimate on Table 5 to result in the final population forecast in 2040 of 8,361.

Table 5: Population Forecast Rectified to 2019 Census

	Census	Growth B Raw	Growth B Rectified
2000	1,799		
2001	1,947		
2002	2,097		
2003	2,238		
2004	2,389		
2005	2,555		
2006	2,748		
2007	2,917		
2008	3,080		
2009	3,218		
2010	3,387	3,429	
2011	3,505	3,535	
2012	3,608	3,645	
2013	3,763	3,757	
2014	3,969	3,873	
2015	4,092	3,993	
2016	4,160	4,117	
2017	4,242	4,244	
2018	4,344	4,375	
2019	4,412	4,510	4,412
2020		4,650	4,548
2021		4,793	4,689
2022		4,941	4,834
2023		5,094	4,983
2024		5,252	5,137
2025		5,414	5,296
2026		5,581	5,460
2027		5,754	5,629
2028		5,932	5,802
2029		6,115	5,982
2030		6,304	6,167
2031		6,499	6,357
2032		6,700	6,554
2033		6,907	6,756
2034		7,120	6,965
2035		7,340	7,180
2036		7,567	7,402
2037		7,801	7,631
2038		8,042	7,867
2039		8,291	8,110
2040		8,547	8,361



Reduction = 97.82%

■ Housing Unit Forecasts

Projecting new growth and development in terms of housing units is important because residential impact fees are assessed when building permits are issued for new units. Thus, the housing unit is used as the basis for assessing impact fees rather than the number of residents that may occupy the housing unit. Since the number of people residing in a particular housing unit will most likely vary, both at the time of initial occupancy and the years ahead as resident's lifestyles and family characteristics change, families grow, children grow up, occupants age, or the unit becomes occupied by a different household as the previous occupants move out. Using average occupancies based on the size of the unit as the basis will vary widely as the years go by. In addition, many services by the Police Department are not related to the size of one's house. Basing impact fees on the number of residents living in a dwelling would result in a constant reassessment of the impact fees due because the demand for services would vary as the number of residents in the unit varies. Instead, using an average fee per housing unit based on average household sizes results in 'averaging' the demand for services which would otherwise vary as the population in the unit changes over the coming 20 years.

The future increase in the number of housing units in the city is based on the population forecasts for the growth trend algorithm presented in the previous section. The table on the next page shows how the housing projections were figured. The approach is to calculate the number of households (which equates to the number of occupied housing units) and then to expand that to the total number of housing units by adding in vacant units.

Household Projections

First, future population numbers for the growth trend projection from Table 5 are converted into the number of households expected in future years. The results are shown on Table 6, on the next page.

The left-hand section of the table shows the Woods & Poole forecasts for population and households for the entire county. These figures are used only to allow a calculation of the average number of people per household countywide, and to reveal how W&P projects those averages to change in the future. Given the tightly knit sociometric model that W&P uses, the relationship between population and households relative to average ratios between them is considered viable as guides to such ratios for Senoia.

The assumption, therefore, is that the average population-per-household sizes in Senoia will 'track' proportionally the trend projected by Woods & Poole countywide. Based on the 2010 Census, the average population-per-household size in Senoia was 2.88 people, compared to the countywide figure of 2.79. The Senoia 2010 figure is 103.4% of the countywide figure; this percentage is applied to the countywide Woods & Poole averages through 2040 to arrive at future average population-per-household sizes for Senoia. These average household sizes are then divided into the Senoia projected population every year to arrive at the household forecasts for 2020 to 2040.

New Housing Units

A 'household' represents an occupied housing unit. Additional 'vacant' housing units therefore need to be added to the number of households in order to estimate the total number of housing units in the city.

This is accomplished by increasing the number of households in the city with the occupancy rate reported in the 2010 Census. Again, these ratios are assumed to continue at the same ratio each year into the future on average.

To arrive at the total housing unit estimate for each year, including vacant units, the number of households (i.e., occupied housing units) is divided by the applicable occupancy rate.

Table 6: Housing Unit Forecast

	Coweta County (Woods & Poole)			Senoia				
	Population	Households	Pop per Household*	Population**	Pop per Household*	Total Households	Occupancy Rate	Housing Units
2010	127,919	45,887	2.79	3,387	2.88	1,175	91.16%	1,289
2011	129,345	47,153	2.74	3,505	2.84	1,236	91.16%	1,356
2012	130,575	48,134	2.71	3,608	2.81	1,286	91.16%	1,411
2013	132,937	49,200	2.70	3,763	2.79	1,347	91.16%	1,478
2014	135,140	49,974	2.70	3,969	2.80	1,419	91.16%	1,557
2015	138,106	50,974	2.71	4,092	2.80	1,461	91.16%	1,603
2016	140,419	51,966	2.70	4,160	2.79	1,489	91.16%	1,633
2017	143,050	52,594	2.72	4,242	2.81	1,508	91.16%	1,654
2018	145,864	53,792	2.71	4,344	2.80	1,549	91.16%	1,699
2019	148,290	55,151	2.69	4,412	2.78	1,587	91.16%	1,741
2020	150,751	56,416	2.67	4,548	2.76	1,646	91.16%	1,806
2021	153,274	57,695	2.66	4,689	2.75	1,707	91.16%	1,873
2022	155,766	58,901	2.64	4,834	2.73	1,768	91.16%	1,940
2023	158,285	60,060	2.64	4,983	2.73	1,829	91.16%	2,006
2024	160,830	61,186	2.63	5,137	2.72	1,890	91.16%	2,073
2025	163,397	62,283	2.62	5,296	2.71	1,952	91.16%	2,141
2026	165,981	63,357	2.62	5,460	2.71	2,016	91.16%	2,212
2027	168,580	64,413	2.62	5,629	2.71	2,080	91.16%	2,282
2028	171,192	65,451	2.62	5,802	2.70	2,145	91.16%	2,353
2029	173,815	66,464	2.62	5,982	2.70	2,212	91.16%	2,427
2030	176,450	67,454	2.62	6,167	2.70	2,280	91.16%	2,501
2031	179,093	68,424	2.62	6,357	2.71	2,349	91.16%	2,577
2032	181,745	69,375	2.62	6,554	2.71	2,419	91.16%	2,654
2033	184,403	70,308	2.62	6,756	2.71	2,491	91.16%	2,733
2034	187,063	71,230	2.63	6,965	2.72	2,565	91.16%	2,814
2035	189,724	72,140	2.63	7,180	2.72	2,640	91.16%	2,896
2036	192,383	73,041	2.63	7,402	2.72	2,718	91.16%	2,982
2037	195,042	73,936	2.64	7,631	2.73	2,798	91.16%	3,069
2038	197,702	74,824	2.64	7,867	2.73	2,879	91.16%	3,158
2039	200,367	75,709	2.65	8,110	2.74	2,964	91.16%	3,252
2040	203,041	76,604	2.65	8,361	2.74	3,051	91.16%	3,347

Multiplier: 103.40%

* Gross: Total population (including group quarters) per household (not average household size).
 ** 2010 Census count as of April 1. 2011-2019: Annual Census Estimates. 2020-2040: projected population.



■ Employment Forecasts

For the employment projections, we looked first to the countywide forecasts prepared by Woods & Poole. W&P counts jobs, not just employed people, which captures people holding two or more jobs, self-employed sole proprietors and part-time workers, as well as vacant positions. This gives a more complete picture than Census figures (which report only the number of people with jobs).

On the table below, the number of jobs shown exclude the types of jobs that would not be associated with an impact fee (such as farm workers, itinerant construction workers and governmental employees). The remaining employment, called the 'value-added jobs', would be businesses subject to impact fees.

Table 7: Value Added Employment

	2020			Future County*		Senoia Estimate		
	County*	ARC**	Percent	2030	2040	2020	2030	2040
Utilities	380	0	0.000%	0	0	0	0	0
Manufacturing	5,776	430	7.445%	436	439	430	436	439
Wholesale Trade	1,981	7	0.353%	9	11	7	9	11
Retail Trade	8,902	61	0.685%	70	75	61	70	75
Transportation & Warehousing	2,256	41	1.817%	51	63	41	51	63
Information	833	0	0.000%	0	0	0	0	0
Finance & Insurance	2,083	87	4.177%	121	148	87	121	148
Real Estate	2,876	2	0.070%	3	3	2	3	3
Professional & Technical Services	2,793	14	0.501%	19	25	14	19	25
Management of Companies	124	20	16.129%	19	18	20	19	18
Administrative & Waste Services	6,125	142	2.318%	187	237	142	187	237
Educational Services	1,483	0	0.000%	0	0	0	0	0
Health Care & Social Assistance	7,467	38	0.509%	58	85	38	58	85
Arts, Entertainment & Recreation	1,505	1	0.066%	1	2	1	1	2
Accommodation & Food Services	5,678	126	2.219%	168	217	126	168	217
Other Private Services	5,229	36	0.688%	52	73	36	52	73
Total Value Added Employment	55,491	1,005	1.811%	1,194	1,396	1,005	1,194	1,396

* Source: Woods & Poole Economics, Inc., Georgia Data Book 2020, Coweta County.

** Source: Atlanta Regional Commission, Coweta County, Census Tract 1705.03.

Unfortunately, Woods & Poole does not report its forecasts below the county level, but ARC does. With the differences noted above in mind, ARC's estimates of employment in the Census Tract where Senoia is located provide a basis for converting future employment to jobs for the City of Senoia.

In the first part of Table 7, countywide job counts from Woods & Poole are shown for each job category in 2020, as well as ARC's job counts for the same categories for Senoia's Census Tract. In the third column, the percent of ARC's jobs of the countywide numbers are shown. These percents are assumed to persist into the future.

Applying the ARC percentages to W&Ps countywide projections to 2030 and 2040, results in estimates of Senoia's future value-added jobs in those years.

■ Day-Night Population

By using the day-night population in impact cost and impact fee calculations is based upon the clear rational nexus between persons and services demanded. There is a proportionality between resident population and business employment, and the resultant need for services. The 'day-night population' is used to determine level of service standards for facilities that serve both the resident population and business employment. The police department, for instance, protects one's house whether or not they are at home, and protects stores and offices whether or not they are open for business. Thus, this 'day-night' population is a measure of the total services demanded of a 24-hour provider facility and a fair way to allocate the costs of such a facility among all of the beneficiaries.

Table 8: Day-Night Population

	Residents	Employees	Total Day-Night
2020	4,548	1,005	5,553
2021	4,689	1,024	5,713
2022	4,834	1,043	5,877
2023	4,983	1,062	6,045
2024	5,137	1,081	6,218
2025	5,296	1,100	6,396
2026	5,460	1,118	6,578
2027	5,629	1,137	6,766
2028	5,802	1,156	6,958
2029	5,982	1,175	7,157
2030	6,167	1,194	7,361
2031	6,357	1,214	7,571
2032	6,554	1,234	7,788
2033	6,756	1,255	8,011
2034	6,965	1,275	8,240
2035	7,180	1,295	8,475
2036	7,402	1,315	8,717
2037	7,631	1,335	8,966
2038	7,867	1,356	9,223
2039	8,110	1,376	9,486
2040	8,361	1,396	9,757
Increase 2020-40	3,813	391	4,204



Adjustments and Credits

■ Cost Adjustments

Calculations related to impact fees are made in terms of the 'present value' of past and future amounts of money, including project cost expenditures and credits for future revenue.

The Georgia Development Impact Fee Act defines 'present value' as "the current value of past, present, or future payments, contributions or dedications of goods, services, materials, construction, or money." This section describes the methodologies used to make appropriate adjustments to capital improvement project cost figures, both past and future, to convert these costs into current dollars when such an adjustment is appropriate.

Calculations for present value (PV) differ when considering past expenditures versus future costs. In both cases, however, the concept is the same—the 'actual' expenditure made or to be made is adjusted to the current year using appropriate rates—an inflation rate for past expenditures and a discount rate for future costs that have been inflated to the year of expenditure. In essence, the present value is considered in light of the value of money as it changes over time because of inflation.

Past Expenditures

Past expenditures are considered in impact fee calculations only for previous expenditures for projects that created excess capacity for new development and are being recouped. An expenditure that was made in the past is converted to PV using the inflation rate of money—in this case the Consumer Price Index (CPI). Although this approach ignores the value of technological innovation (i.e., better computers are available today for the same or lower historic prices) and evolving land prices (often accelerated beyond inflation by market pressures), the approach best captures the value of the money actually spent. For instance, it is not important that you can buy a better computer today for the same price that was paid five years ago; what is important is the money was spent five years ago and what that money would be worth today had it been saved instead of spent.

Future Project Costs

In order to determine the present value of a project expenditure that will be made in the future, the Net Present Value (NPV) of the expenditure is determined. To calculate the NPV of any project cost, two figures are needed—the future cost of the project anticipated in the year the expenditure will be made, and the Net Discount Rate. Given the current cost of a project, that cost is first inflated into the future to the target expenditure year to establish the estimated future cost when the expenditure will be made. The future cost is then deflated to the present using the Net Discount Rate, which establishes the NPV for the project in current dollars. These two formulas are:

$$\text{Future Cost} = \text{Current Cost} \times (1 + \text{Inflation Rate})^{\text{Year of Expenditure} - \text{Current Year}}$$

$$\text{Net Present Value} = \text{Future Cost} \times (1 + \text{Net Discount Rate})^{\text{Current Year} - \text{Year of Expenditure}}$$

In this section, two important adjustments are discussed that are required to convert current costs into future cost figures, and then back into current dollars.

First, an appropriate cost inflator is identified. This adjustment factor is important in determining the future cost of a project, based on current cost estimates. The cost inflator may be based on anticipated inflation in construction or building costs, or on anticipated inflation in the value of money (for capital projects that do not include a construction component). In essence, costs increase over

time. By identifying the appropriate inflation rate that is related to the type of project (building construction, project construction or non-construction), current cost estimates can be used to predict future costs in the year they are expected to occur.

The second cost adjustment is a deflator—the Net Discount Rate. Essentially, the Net Discount Rate is the interest rate that accrues to monies being held in escrow. That is, as impact fees are collected and 'saved up' over the years for future expenditure, they increase at the rate that the account is accruing interest. Having determined the inflated cost of a project at some future date, the cost in today's dollars can be reduced to the extent that interest will increase the funds on hand as they build up. This calculation determines how much money needs to be added to the account so that, with interest, it will grow to the amount needed for that future expenditure at that time. This is the Net Present Value of that future expenditure.

■ Cost Inflatoms

Three different cost inflators are used in the impact fee calculations, based on the type of project being considered. For infrastructure projects, a 'construction cost inflator' is used. For projects that require construction of a structure (such as a police station expansion), a 'building cost inflator' is used as the appropriate inflation rate. For all non-construction types of projects (such as a police cruiser or park land), an inflation rate is used that is based on the Consumer Price Index. These different types of inflators are discussed below.

Engineering News Record's Cost Indexes

ENR publishes both a Construction Cost Index (CCI) and a Building Cost Index (BCI) that are widely used in the construction industry. The indexes are based on annual cost increases of various construction materials and applicable labor rates and are calibrated regionally. For calculation of the CCI and the BCI, indexes in 1913 are set at 100.

Construction Cost Inflator

Table 9 uses the example of a calculation of the annual average rate of increase reflected in construction costs. For this analysis, the 2010-2020 ten-year period is used as a base time period for an estimate of future construction cost increases due to inflation in labor and materials costs.

Table 9: Construction Cost Inflator – CCI

Year	Amount	CCI*		Effect of Inflation	
		1913=100	2010=1.0	CCI	Avg. Rate =
					1.3623968%
2010	\$ 100,000.00	5,742.83	1.000000	\$ 100,000.00	\$ 101,362.40
2011		5,829.65	1.015118	\$ 101,511.78	\$ 102,743.35
2012		5,892.64	1.026087	\$ 102,608.66	\$ 104,143.13
2013		5,983.23	1.041861	\$ 104,186.15	\$ 105,561.97
2014		6,147.52	1.070469	\$ 107,046.94	\$ 107,000.14
2015		6,245.74	1.087572	\$ 108,757.20	\$ 108,457.91
2016		6,277.14	1.093039	\$ 109,303.91	\$ 109,935.54
2017		6,433.18	1.120212	\$ 112,021.20	\$ 111,433.29
2018		6,592.98	1.148037	\$ 114,803.70	\$ 112,951.46
2019		6,681.50	1.163450	\$ 116,345.04	\$ 114,490.31
2020		6,750.41	1.175450	\$ 117,545.04	\$ 116,050.12
				\$ 1,194,129.62	\$ 1,194,129.62

*Construction Cost Index, Atlanta Region. Engineering News Record, Annual Average Indices.

The table above shows a construction project that cost \$100,000 in 2010, and how much the same project would cost in each subsequent year using the Construction Cost Index published by Engineering News Record for the Atlanta area. Setting the 2010 Construction Cost Index (CCI) at '1.0,' the increase in the CCI as a multiple of 2010 is also shown on the table. The equivalent cost of the same project in each subsequent year is calculated by multiplying the CCI multiplier times \$100,000. When the total for all such projects is summed for the 2010-2020 period, the equivalent average annual rate of increase is calculated as the percentage that would produce the same total. This percentage is used in the text of this report as the applicable inflator for infrastructure construction projects that will begin in future years.

Building Cost Inflatior

The inflator for future construction costs for buildings is based on ENR’s Building Cost Index (BCI) for each year from 2010 through 2020, and is calculated in the same manner as described above for the Construction Cost Inflatior. Table 10 shows the results.

Table 10: Building Cost Inflatior – BCI

Year	Amount	BCI*		Effect of Inflation	
		1913=100	2010=1.0	BCI	Avg. Rate =
					2.1015000%
2010	\$ 100,000.00	3,736.56	1.000000	\$ 100,000.00	\$ 100,000.00
2011		3,837.47	1.027007	\$ 102,700.70	\$ 102,101.50
2012		3,970.93	1.062725	\$ 106,272.51	\$ 104,247.16
2013		4,022.11	1.076421	\$ 107,642.11	\$ 106,437.92
2014		4,076.81	1.091061	\$ 109,106.07	\$ 108,674.71
2015		4,108.05	1.099420	\$ 109,942.02	\$ 110,958.51
2016		4,126.72	1.104418	\$ 110,441.79	\$ 113,290.30
2017		4,278.39	1.145010	\$ 114,500.96	\$ 115,671.10
2018		4,408.94	1.179947	\$ 117,994.71	\$ 118,101.93
2019		4,523.59	1.210631	\$ 121,063.09	\$ 120,583.84
2020		4,615.43	1.235209	\$ 123,520.92	\$ 123,117.91
				\$ 1,223,184.88	\$ 1,223,184.88

*Building Cost Index, Atlanta Region. Engineering News Record, Annual Average Indices.

CPI Inflatior

For projects that do not involve construction, only the future value of money needs to be considered (without regard to inflation in labor or materials costs). For this calculation, the Consumer Price Index (CPI) is used, assuming past experience will continue into the foreseeable future.

Table 11 shows the CPI figures for every year since 1982, updated to the most recently reported year (2019).

Using an annual expenditure of \$10,000 as an example, the multipliers on Table 11 yield the figures shown for the CPI on the table under the 'present value' heading. Cumulatively, the \$380,000 spent over the 1982-2019 period would have a total present value of \$600,974.62 in today’s dollars. Considering the present value figures for the \$10,000 annual expenditures, an average annual inflation rate of more than 2.572% yields the same total amount over the 1982-2019 period.

The 37-year average of annual CPI change (the period of 1982-2019) shown on Table 11 would be useful in estimating the present value (PV) of past expenditures, but would not be the best indicator of future change because of the long timeframe covered. While the historic CPI multipliers reflect the swings in inflation in the past, these rates have moderated somewhat in recent years as inflation has become a primary target of federal monetary policy.

Looking only at the change in CPI for the ten years from 2009 to 2019, an average annual inflation rate of slightly less than 1.72% best captures the change over that period. This lower inflation rate (compared to the 1982-2019 period) is assumed to be experienced 'on average' in future years, and is used for inflator calculations for future non-construction expenditures.

Table 11: Non-Construction Cost Inflator – CPI

Year	Amount	CPI*		Present Value: CPI	Long Term Inflator =	10-Year Inflator =
		1982-84=100	2018=1.0			
					2.572217%	
1982	\$ 10,000.00	96.50	2.64929	\$ 26,492.91	\$ 25,591.78	
1983	\$ 10,000.00	99.60	2.56683	\$ 25,668.33	\$ 24,950.01	
1984	\$ 10,000.00	103.90	2.46060	\$ 24,606.02	\$ 24,324.34	
1985	\$ 10,000.00	107.60	2.37599	\$ 23,759.91	\$ 23,714.35	
1986	\$ 10,000.00	109.60	2.33263	\$ 23,326.33	\$ 23,119.66	
1987	\$ 10,000.00	113.60	2.25050	\$ 22,504.98	\$ 22,539.89	
1988	\$ 10,000.00	118.30	2.16109	\$ 21,610.87	\$ 21,974.65	
1989	\$ 10,000.00	124.00	2.06175	\$ 20,617.47	\$ 21,423.59	
1990	\$ 10,000.00	130.70	1.95606	\$ 19,560.56	\$ 20,886.35	
1991	\$ 10,000.00	136.20	1.87707	\$ 18,770.67	\$ 20,362.58	
1992	\$ 10,000.00	140.30	1.82221	\$ 18,222.14	\$ 19,851.95	
1993	\$ 10,000.00	144.50	1.76925	\$ 17,692.50	\$ 19,354.12	
1994	\$ 10,000.00	148.20	1.72508	\$ 17,250.78	\$ 18,868.77	
1995	\$ 10,000.00	152.40	1.67754	\$ 16,775.37	\$ 18,395.60	
1996	\$ 10,000.00	156.90	1.62942	\$ 16,294.24	\$ 17,934.29	
1997	\$ 10,000.00	160.50	1.59288	\$ 15,928.76	\$ 17,484.55	
1998	\$ 10,000.00	163.00	1.56845	\$ 15,684.45	\$ 17,046.08	
1999	\$ 10,000.00	166.60	1.53455	\$ 15,345.53	\$ 16,618.62	
2000	\$ 10,000.00	172.20	1.48465	\$ 14,846.49	\$ 16,201.87	
2001	\$ 10,000.00	177.10	1.44357	\$ 14,435.72	\$ 15,795.57	
2002	\$ 10,000.00	179.90	1.42110	\$ 14,211.04	\$ 15,399.47	
2003	\$ 10,000.00	184.00	1.38944	\$ 13,894.38	\$ 15,013.29	
2004	\$ 10,000.00	188.90	1.35340	\$ 13,533.96	\$ 14,636.80	
2005	\$ 10,000.00	195.30	1.30905	\$ 13,090.45	\$ 14,269.75	
2006	\$ 10,000.00	201.60	1.26814	\$ 12,681.38	\$ 13,911.91	1.719932%
2007	\$ 10,000.00	207.34	1.23302	\$ 12,330.19	\$ 13,563.04	
2008	\$ 10,000.00	215.30	1.18743	\$ 11,874.27	\$ 13,222.91	
2009	\$ 10,000.00	214.54	1.19167	\$ 11,916.67	\$ 12,891.32	\$ 11,859.34
2010	\$ 10,000.00	218.06	1.17244	\$ 11,724.35	\$ 12,568.04	\$ 11,658.82
2011	\$ 10,000.00	224.94	1.13656	\$ 11,365.60	\$ 12,252.87	\$ 11,461.69
2012	\$ 10,000.00	229.59	1.11352	\$ 11,135.16	\$ 11,945.61	\$ 11,267.89
2013	\$ 10,000.00	232.96	1.09744	\$ 10,974.41	\$ 11,646.04	\$ 11,077.36
2014	\$ 10,000.00	236.74	1.07992	\$ 10,799.23	\$ 11,354.00	\$ 10,890.06
2015	\$ 10,000.00	237.02	1.07864	\$ 10,786.42	\$ 11,069.27	\$ 10,705.93
2016	\$ 10,000.00	240.01	1.06520	\$ 10,652.04	\$ 10,791.68	\$ 10,524.90
2017	\$ 10,000.00	245.12	1.04299	\$ 10,429.85	\$ 10,521.06	\$ 10,346.94
2018	\$ 10,000.00	251.11	1.01812	\$ 10,181.19	\$ 10,257.22	\$ 10,171.99
2019	\$ 10,000.00	255.66	1.00000	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00
1982-19	\$ 380,000.00			\$ 600,974.62	\$ 600,974.62	
2009-19	\$ 110,000.00			\$ 119,964.92	← →	\$ 119,964.92

*Average annual Consumer Price Index data is from the U. S. Department of Labor, Bureau of Labor Statistics.

Calculating Net Present Value

Determining the NPV of future project expenditures depends on the type of 'project' being funded.

For a building construction project (such as a police station), the current cost estimate for the project is inflated into the future using the average Building Cost Inflater (from Table 10) applied to the number of years until the year planned for its construction. This future cost is then deflated back to the present using the Net Discount Rate (currently 0.005%) since this reflects the present value of a future amount of money.

For other construction projects (such as recreation facilities), the current cost estimate for the project is inflated into the future using the average Construction Cost Inflater (from Table 9) applied to the number of years until the year planned for its construction. Like building construction projects, this future cost is then deflated back to the present using the Net Discount Rate.

For non-construction capital projects (such as police cruiser purchases or land acquisition), the 10-year average CPI inflator (from Table 11) is used to estimate the project expenditure in future dollars while the Net Discount Rate is applied to deflate that future cost to present value.

■ Other Fees and Charges

In addition to the net impact fees for each public facility category, there are two additional charges than can be assessed in an impact fee program. Based on the definition of "system improvement costs" (see the Glossary), there are possible impact fee charges beyond the categories already discussed that are allowed under State law. These may be directly or indirectly related to the cost of capital projects, and can include a fee for the administration of the impact fee program as well as a fee to recoup the cost to prepare the Capital Improvements Element. Specifically, DIFA allows for the collection of impact fees based on:

"administrative costs, provided that such administrative costs shall not exceed 3 percent of the total amount of the costs"

And,

"expenses incurred for qualified staff or any qualified engineer, planner, architect, landscape architect, or financial consultant for preparing or updating the capital improvement element"

Program Administration

A surcharge of 3%, the maximum allowable, has been added to the subtotal of impact fees for the individual categories (this is shown in the Maximum Impact Fee Schedule in the Introduction section of this report). The fees collected in this category can only be used for the administration of the impact fee program, and are reported annually to the State just like the other service categories. Like any fee, this must have some rational and reasonable connection to the service rendered. Commonly, the administrative fee collected is used to offset some or all of the cost to handle impact fee calculations by the building permit staff, some or all of the cost for the finance department to process, record and distribute impact fees, and some or all of the cost for the management and oversight of the program by administrative staff.

CIE Prep Fee

A surcharge for the recoupment of the cost to prepare the Capital Improvements Element Update (2020) has been added to the subtotal of the individual category impact fees (not including the administration fee). The 'CIE Prep Fee' is based on a recoupment of the preparation cost over the next five years of impact fee collections. The anticipated collection is based on the current maximum allowable impact fee for each category, and the population and employment forecasts.

Funds on Hand

The City has impact fee monies from previous collections in its various impact fee accounts. To the extent that the funds have not been committed to fund on-going impact fee projects, the amounts will be applied to offset new impact fee costs in each respective public facility category as a credit. The most recently reported fund balances are shown on Table 7.

Table 12: Impact Fee Fund Balances

Police	Parks & Recreation	Total
\$ 112,510.05	\$ 731,303.67	\$ 843,813.72

Fund Balances as of November 1, 2020

Police Department Facilities

The Senoia Police Department provides primary law enforcement throughout the city. Through a variety of active law enforcement, community outreach, and educational programs, the Police Department serves all residents, businesses and their employees within the city.

■ Service Area

The entire city comprises a single service area for the provision of law enforcement services because all residents, businesses and employees in the city have equal access to the services.

■ Level of Service

The Level of Service (LOS) is based on the current (2020) value of the Department's vehicles, equipment and facilities, shown on the following two tables.

Table 13 shows the year of acquisition and the original cost of all of the Police Department's vehicles currently in service.

In 2014 and 2015, vehicle purchase prices and the subsequent expenditures for equipping the vehicles as police patrol cars was recorded in the City's records separately. The column entitled 'Equipped' on the table shows the total cost of each vehicle as fully equipped, combining the acquisition cost and the subsequent equipment cost combined for the 2014 and 2015 vehicles. The Net Present Value of each vehicle brought forward to what the vehicle would cost in 2020, shown in the final column, is based on the Consumer Price Index of inflation rates reported for each applicable year.

Because the vehicles are driven fewer miles a year patrolling the city than comparable County patrol cars, which patrol the entire unincorporated area plus a few cities on contract, they are anticipated to potentially last more than 10 years with appropriate maintenance (either in service or held as backup vehicles).



Table 13: Capital Expense - Vehicles

	Year	Net Cost*	Equipped**	2020 NPV***
2011 Crown Victoria	2011	\$ 34,422.64	\$ 34,422.64	\$ 40,114.68
2011 Crown Victoria	2011	\$ 34,422.64	\$ 34,422.64	\$ 40,114.68
2011 Crown Victoria	2011	\$ 34,422.64	\$ 34,422.64	\$ 40,114.68
2011 Crown Victoria	2011	\$ 34,422.64	\$ 34,422.64	\$ 40,114.68
2012 Ford F-150	2012	\$ 20,095.92	\$ 20,095.92	\$ 23,024.10
2014 Dodge Durando	2014	\$ 27,007.91	\$ 42,242.06	\$ 46,779.03
2014 Dodge Charger	2014	\$ 23,927.37	\$ 39,161.52	\$ 43,367.62
2014 Dodge Charger	2014	\$ 23,927.37	\$ 39,161.52	\$ 43,367.62
2014 Dodge Charger	2014	\$ 23,927.37	\$ 39,161.52	\$ 43,367.62
2014 Dodge Charger	2014	\$ 23,927.37	\$ 39,161.52	\$ 43,367.62
2014 Dodge Charger	2014	\$ 24,170.25	\$ 39,404.40	\$ 43,636.59
2015 Dodge Charger	2015	\$ 24,347.00	\$ 36,869.04	\$ 40,140.57
2015 Dodge Charger	2015	\$ 24,347.00	\$ 36,869.04	\$ 40,140.57
2015 Dodge Charger	2016	\$ 37,847.75	\$ 37,847.75	\$ 40,511.42
2016 F150	2017	\$ 38,476.28	\$ 38,476.28	\$ 40,489.85
2017 F150	2017	\$ 46,232.61	\$ 46,232.61	\$ 48,652.08
2018 Ford Interceptor	2018	\$ 46,875.23	\$ 46,875.23	\$ 48,496.69
2018 Ford Interceptor	2018	\$ 46,875.23	\$ 46,875.23	\$ 48,496.69
2018 Ford Interceptor	2018	\$ 46,875.23	\$ 46,875.23	\$ 48,496.69
2018 Ford Interceptor	2018	\$ 46,875.23	\$ 46,875.23	\$ 48,496.69
2017 Ford Explorer	2018	\$ 49,593.60	\$ 49,593.60	\$ 51,309.09
2017 Ford F-150	2018	\$ 51,183.79	\$ 51,183.79	\$ 52,954.29
		Total	\$ 880,652.05	\$ 955,553.55

*Source: City of Senoia Book Asset Detail by Division, 12/31/19.

**Separate recorded cost allocated to 2014 and 2015 vehicles, as applicable.

***Net Present Value based on Consumer Price Index.



Table 14 takes a look at the Department’s current equipment and purchases, also based on the actual expenses for each applicable year recorded in the City’s capital assets listings.

The only listings for equipment acquisitions (having an anticipated life of 10 years or more) were the two license plate readers purchased in 2014 and 2015. Their NPV is based on the Consumer Price Index for those two years carried forward to 2020.

Table 14: Capital Expense - Equipment and Facilities

Capital Expense	Cost*	Year	2020 NPV**
License Plate Reader	\$ 15,280.00	2014	\$ 16,921.13
License Plate Reader	\$ 15,872.00	2015	\$ 17,280.38
Total Equipment	\$ 31,152.00		\$ 34,201.51
Firing Range, Building and Shed	\$ 65,825.00	2015	\$ 70,415.24
Total Training Facilities	\$ 65,825.00		\$ 70,415.24
Police Building Engineering	\$ 3,300.00	2008	\$ 4,232.91
Police Building Land	\$ 234,902.00	2008	\$ 301,308.66
Police Building Construction	\$ 1,292,639.00	2010	\$ 1,590,674.57
Police Building Security System	\$ 4,750.00	2010	\$ 5,845.18
Police Building Telecommunications	\$ 3,046.00	2010	\$ 3,748.30
Police Building Site Lighting	\$ 15,930.00	2010	\$ 19,602.88
Police Building Furniture/fixtures	\$ 57,096.00	2010	\$ 70,260.26
Police Building Smoke Detectors	\$ 4,313.00	2011	\$ 5,198.44
Total Police Building	\$ 1,615,976.00		\$ 2,000,871.20

*Source: City of Senoia Book Asset Detail by Division, 12/31/19.

**Net Present Value based on Consumer Price Index, ENP Construction Cost Index or ENR Building Cost Index, as applicable.

In 2015, the City completed creation of its first training facility – a firing range complete with protective berm and a building/shed structure for storage, maintenance and firing observation. The NPV of the range and berm are based on the Consumer Price Index inflation rate, while the NPV of the structure is based on Engineering News Record’s building cost index.

The police building itself was constructed over several years, beginning in 2008 with land and engineering costs recorded, followed by construction of the building itself and most of its internal systems recorded in 2010, with the final capital expenditure in 2011. Altogether, the Police Building cost a total of almost \$1.62 million, which in 2020 terms is a total NPV of slightly more than \$2 million using ENR’s building cost index.

The current values of the Police Department’s vehicles, equipment, training facilities and the Police Building are summarized on Table 15. By dividing the current values by the city’s 2020 day-night population (5,553), the cost per person can be determined for each resident and value-added employee.

Table 15: Current Cost per Day-Night Person

	Quantity	2020 NPV*	2020 Day-Night Population	2020 Cost per Day-Night Person
Vehicles	22	\$ 955,553.55	5,553	\$ 172.08
Equipment		\$ 34,201.51	5,553	\$ 6.16
Training Facilities	14,581 sq. feet	\$ 70,415.24	5,553	\$ 12.68
Police Building	7,620 sq.feet	\$ 2,000,871.20	5,553	\$ 360.32
Total		\$ 2,105,487.95		\$ 379.16

**Net Present Value based on Consumer Price Index, ENR Construction Cost Index or ENR Building Cost Index, as applicable.

In essence, this 2020 historic cost per day-night person on Table 15 establishes the level of investment that has been made by the people and businesses in the city through their taxes. This level of investment establishes a ‘standard’ that will be needed to meet the future demands that new growth and development will bring in the future in order to maintain the level of service available for everyone—both the current and future residents and businesses.



On Table 16, the '2020 Cost per Day-Night Person' from Table 15 is multiplied times the increase in the day-night population in 2040. This results in the total investment that will be needed to maintain the current Level of Service, in 2020 dollars, for everyone.

It is not known when the future vehicles, equipment or facilities will be acquired or built in the coming 20 years. That will be an annual determination through the budget planning and adoption process each year. An 'average' year of 2030 is therefore selected to calculate the Net Present Value of the improvements. Some expenditures will be made sooner for less; some later for more. On average, the totals are expected to be equal to the 2030 'average' figures overall.

This 2020 figures are therefore converted to the 2030 NPV. The NPV for the vehicles and equipment is based on the Consumer Price Index.

The NPV of the firing range and berm are based on the Consumer Price Index inflation rate, while the NPV of the structure is based on Engineering News Record's building cost index, which is also used for the NPV of the Police Building floor area.

Table 16: Cost per Future Day-Night Person

	2040 Day-Night Pop Increase	2020 Cost to Serve D-N Population	Average 2030 Net Present Value*
Vehicles	4,204	\$ 723,424.32	\$ 857,504.83
Equipment	4,204	\$ 25,896.64	\$ 30,696.36
Training Facilities	4,204	\$ 53,306.72	\$ 61,000.52
Police Building	4,204	\$ 1,514,785.28	\$ 1,864,039.71
Total		\$ 2,317,412.96	\$ 2,813,241.42

*Net Present Value based on Consumer Price Index, ENR Construction Cost Index or ENR Building Cost Index, as applicable.

■ **Impact Cost Calculation: per Day-Night Person**

Using the total 'average 2030 net present value' figure on Table 16, the impact cost per day-night person is calculated, based on the increase in day-night population between 2020 and 2040.

The total eligible cost is reduced by the funds on hand to determine the actual net cost that can be recovered through future impact fees. That figure, divided by the future increase in the day-night population to 2040, results in the share of the cost for each new resident and value-added employee that future growth will generate over the coming 20 years.

In addition to the net impact cost of the capital improvements, the 3% administrative fee is added to the net fees as well as the apportioned share of the Capital Improvements Element preparation cost (both of which are discussed in the Adjustments and Credits chapter).

Table 17: Cost to Serve New Growth

Description	Total
Eligible Cost of Police Projects	\$ 2,813,241.42
minus Impact Fee Fund Balance	\$ (112,510.05)
= Net Eligible Police Project Costs	\$ 2,700,731.37
÷ Day-Night Population Increase (2020-2040)	4,204
= Net Impact Fee Cost per Day-Night Person	\$ 642.42
plus 3% Administration Fee	\$ 126.12
plus CIE Preparation Fee	\$ 63.06
= Total Maximum Impact Fee per Day-Night Person	\$ 831.60



■ Impact Cost Calculation: per Housing Unit

Since the average household size is expected to change over the coming 20 years, a constant fee based on the number of persons per dwelling unit would be both unfair and impractical. Instead, the portion of project costs that is attributable to new residential growth is calculated and assigned to the anticipated housing unit increase.

As shown on Table 18, this is accomplished by first identifying the percentage of the total city day-night population increase that will be comprised of new residents. This percentage is then applied to the 'total net eligible police project costs' figure to produce the amount of the total cost attributable to new residential growth. This cost attributable to new residential growth is divided by the number of new housing units that future growth is projected to generate, to produce a net per housing unit impact fee.

To this, of course, is added the administration fee and the CIE preparation fee, discussed earlier.

Table 18: Calculation of Net Housing Unit Fee

Factor	Data
Residential Population Increase (2020-2040)	3,813
÷ Day/Night Population Increase (2020-2040)	4,204
= Residential Increase as % of Total Increase	90.70%
Net Eligible Police Project Costs	\$ 2,700,731.37
× Residential % of Total Day-Night Increase =	\$ 2,449,545.36
÷ New Housing Units in City (2020-2040)	1,541
= Net Impact Fee Cost per Housing Unit	\$ 1,589.58
plus 3% Administration Fee	\$ 47.69
plus CIE Preparation Fee	\$ 23.84
= Total Maximum Impact Fee per Housing Unit	\$ 1,661.11

■ Impact Fee Schedule – Police Department Facilities

The fee schedule that follows presents the maximum impact fee that could be charged in Senoia for the police department public facility category, based on the calculations carried out in this chapter. Impact fees for police department facilities are collected from residential and nonresidential development.

The figures under the 'maximum fee per unit' column are transferred to the Police Department column of the Maximum Impact Fee Schedule in the Introduction Chapter of this report.

Table 19: Maximum Impact Fee Schedule - Police Department Facilities

ITE Code	Land Use	Employees	Unit of Measure	Maximum Net Fee per Unit	Administration Fee	CIE Preparation Fee	Maximum Total Fee per Unit
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Maximum Net Fee per Housing Unit:	\$ 1,589.58
Maximum Net Fee per Day-Night Person (Employee):	\$ 642.42

Residential (200-299)

210	Single-Family Detached Housing	n/a	per dwelling	\$ 1,589.58	\$ 47.68	\$ 23.84	\$ 1,661.10
220	Apartment	n/a	per dwelling	\$ 1,589.58	\$ 47.68	\$ 23.84	\$ 1,661.10
230	Residential Condominium/Townhouse	n/a	per dwelling	\$ 1,589.58	\$ 47.68	\$ 23.84	\$ 1,661.10

Port and Terminal (000-099)

030	Intermodal Truck Terminal	0.001415	per square foot	\$ 0.9089	\$ 0.0272	\$ 0.0136	\$ 0.9497
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Industrial/Agricultural (100-199)

110	General Light Industrial	0.002308	per square foot	\$ 1.4827	\$ 0.0444	\$ 0.0222	\$ 1.5493
120	General Heavy Industrial	0.001829	per square foot	\$ 1.1752	\$ 0.0352	\$ 0.0176	\$ 1.2280
140	Manufacturing	0.001793	per square foot	\$ 1.1521	\$ 0.0345	\$ 0.0172	\$ 1.2038
150	Warehousing	0.000915	per square foot	\$ 0.5879	\$ 0.0176	\$ 0.0088	\$ 0.6143
151	Mini-Warehouse	0.000077	per square foot	\$ 0.0495	\$ 0.0014	\$ 0.0007	\$ 0.0516
152	High-Cube Warehouse	0.000076	per square foot	\$ 0.0488	\$ 0.0014	\$ 0.0007	\$ 0.0509

Lodging (300-399)

310	Hotel or Conference Motel	0.569735	per room	\$ 366.0092	\$ 10.9802	\$ 5.4901	\$ 382.4795
311	All Suites Hotel	0.500000	per room	\$ 321.2100	\$ 9.6363	\$ 4.8181	\$ 335.6644
320	Motel	0.439500	per room	\$ 282.3438	\$ 8.4703	\$ 4.2351	\$ 295.0492

Recreational (400-499)

430	Golf Course	0.245614	per acre	\$ 157.7874	\$ 4.7336	\$ 2.3668	\$ 164.8878
437	Bowling Alley	0.001000	per square foot	\$ 0.6424	\$ 0.0192	\$ 0.0096	\$ 0.6712
443	Movie Theater	0.001470	per square foot	\$ 0.9440	\$ 0.0283	\$ 0.0141	\$ 0.9864
460	Arena	3.333000	per acre	\$ 2,141.1859	\$ 64.2355	\$ 32.1177	\$ 2,237.5391
480	Amusement Park	9.094838	per acre	\$ 5,842.7058	\$ 175.2811	\$ 87.6405	\$ 6,105.6274
490	Tennis Courts	0.243888	per acre	\$ 156.6784	\$ 4.7003	\$ 2.3501	\$ 163.7288
491	Racquet/Tennis Club	0.000307	per square foot	\$ 0.1972	\$ 0.0059	\$ 0.0029	\$ 0.2060
492	Health/Fitness Center	0.000705	per square foot	\$ 0.4529	\$ 0.0135	\$ 0.0067	\$ 0.4731
495	Recreational Community Center	0.001241	per square foot	\$ 0.7973	\$ 0.0239	\$ 0.0119	\$ 0.8331

Maximum Impact Fee Schedule - Police Department Facilities continued

ITE Code	Land Use	Employees	Unit of Measure	Maximum Fee per Unit	Administration Fee	CIE Preparation Fee	Maximum Total Fee per Unit
<i>Institutional (500-599)</i>							
520	Private Elementary School	0.000982	per square foot	\$ 0.6310	\$ 0.0189	\$ 0.0094	\$ 0.6593
530	Private High School	0.000653	per square foot	\$ 0.4195	\$ 0.0125	\$ 0.0062	\$ 0.4382
560	Church/Place of Worship	0.000347	per square foot	\$ 0.2230	\$ 0.0066	\$ 0.0033	\$ 0.2329
565	Day Care Center	0.002818	per square foot	\$ 1.8101	\$ 0.0543	\$ 0.0271	\$ 1.8915
566	Cemetery	0.081425	per acre	\$ 52.3093	\$ 1.5692	\$ 0.7846	\$ 54.6631
<i>Medical (600-699)</i>							
610	Hospital	0.002938	per square foot	\$ 1.8873	\$ 0.0566	\$ 0.0283	\$ 1.9722
620	Nursing Home	0.002331	per square foot	\$ 1.4977	\$ 0.0449	\$ 0.0224	\$ 1.5650
630	Clinic	0.003926	per square foot	\$ 2.5224	\$ 0.0756	\$ 0.0378	\$ 2.6358
<i>Office (700-799)</i>							
710	General Office Building	0.003322	per square foot	\$ 2.1343	\$ 0.0640	\$ 0.0320	\$ 2.2303
714	Corporate Headquarters Building	0.003425	per square foot	\$ 2.2002	\$ 0.0660	\$ 0.0330	\$ 2.2992
715	Single-Tenant Office Building	0.003149	per square foot	\$ 2.0228	\$ 0.0606	\$ 0.0303	\$ 2.1137
720	Medical-Dental Office Building	0.004055	per square foot	\$ 2.6050	\$ 0.0781	\$ 0.0390	\$ 2.7221
760	Research and Development Center	0.002928	per square foot	\$ 1.8809	\$ 0.0564	\$ 0.0282	\$ 1.9655
770	Business Park	0.003079	per square foot	\$ 1.9781	\$ 0.0593	\$ 0.0296	\$ 2.0670
<i>Retail (800-899)</i>							
812	Building Materials and Lumber Store	0.001406	per square foot	\$ 0.9032	\$ 0.0270	\$ 0.0135	\$ 0.9437
813	Free-Standing Discount Superstore	0.000960	per square foot	\$ 0.6167	\$ 0.0185	\$ 0.0092	\$ 0.6444
814	Variety Store	0.000960	per square foot	\$ 0.6167	\$ 0.0185	\$ 0.0092	\$ 0.6444
815	Free-Standing Discount Store	0.001985	per square foot	\$ 1.2750	\$ 0.0382	\$ 0.0191	\$ 1.3323
816	Hardware/Paint Store	0.000964	per square foot	\$ 0.6192	\$ 0.0185	\$ 0.0092	\$ 0.6469
817	Nursery (Garden Center)	0.003120	per square foot	\$ 2.0041	\$ 0.0601	\$ 0.0300	\$ 2.0942
818	Nursery (Wholesale)	0.001667	per square foot	\$ 1.0707	\$ 0.0321	\$ 0.0160	\$ 1.1188
820	Shopping Center	0.001670	per square foot	\$ 1.0728	\$ 0.0321	\$ 0.0160	\$ 1.1209
823	Factory Outlet Center	0.001670	per square foot	\$ 1.0728	\$ 0.0321	\$ 0.0160	\$ 1.1209
826	Specialty Retail Center	0.001982	per square foot	\$ 1.2733	\$ 0.0381	\$ 0.0190	\$ 1.3304
841	Automobile Sales	0.001528	per square foot	\$ 0.9816	\$ 0.0294	\$ 0.0147	\$ 1.0257

Maximum Impact Fee Schedule - Police Department Facilities continued

ITE Code	Land Use	Employees	Unit of Measure	Maximum Fee per Unit	Administration Fee	CIE Preparation Fee	Maximum Total Fee per Unit
<i>Retail (800-899) continued</i>							
843	Auto Parts Store	0.000960	per square foot	\$ 0.6167	\$ 0.0185	\$ 0.0092	\$ 0.6444
848	Tire Store	0.001280	per square foot	\$ 0.8223	\$ 0.0246	\$ 0.0123	\$ 0.8592
849	Tire Superstore	0.001280	per square foot	\$ 0.8223	\$ 0.0246	\$ 0.0123	\$ 0.8592
850	Supermarket	0.001164	per square foot	\$ 0.7479	\$ 0.0224	\$ 0.0112	\$ 0.7815
851	Convenience Market (Open 24 Hours)	0.001800	per square foot	\$ 1.1564	\$ 0.0346	\$ 0.0173	\$ 1.2083
853	Convenience Market with Gasoline Pumps	0.001800	per square foot	\$ 1.1564	\$ 0.0346	\$ 0.0173	\$ 1.2083
854	Discount Supermarket	0.002251	per square foot	\$ 1.4462	\$ 0.0433	\$ 0.0216	\$ 1.5111
860	Wholesale Market	0.000820	per square foot	\$ 0.5266	\$ 0.0157	\$ 0.0078	\$ 0.5501
861	Discount Club	0.001298	per square foot	\$ 0.8337	\$ 0.0250	\$ 0.0125	\$ 0.8712
862	Home Improvement Superstore	0.000960	per square foot	\$ 0.6167	\$ 0.0185	\$ 0.0092	\$ 0.6444
863	Electronics Superstore	0.000960	per square foot	\$ 0.6167	\$ 0.0185	\$ 0.0092	\$ 0.6444
870	Apparel Store	0.001670	per square foot	\$ 1.0728	\$ 0.0321	\$ 0.0160	\$ 1.1209
875	Department Store	0.001980	per square foot	\$ 1.2720	\$ 0.0381	\$ 0.0190	\$ 1.3291
880	Pharmacy/Drugstore	0.001670	per square foot	\$ 1.0728	\$ 0.0321	\$ 0.0160	\$ 1.1209
890	Furniture Store	0.000415	per square foot	\$ 0.2667	\$ 0.0080	\$ 0.0040	\$ 0.2787

Services (900-999)

912	Drive-in Bank	0.004788	per square foot	\$ 3.0761	\$ 0.0922	\$ 0.0461	\$ 3.2144
931	Quality Restaurant	0.007460	per square foot	\$ 4.7925	\$ 0.1437	\$ 0.0718	\$ 5.0080
932	High-Turnover (Sit-Down) Restaurant	0.007460	per square foot	\$ 4.7925	\$ 0.1437	\$ 0.0718	\$ 5.0080
934	Fast-Food Restaurant	0.010900	per square foot	\$ 7.0024	\$ 0.2100	\$ 0.1050	\$ 7.3174
941	Quick Lubrication Vehicle Shop	2.100000	per service bay	\$ 1,349.0820	\$ 40.4724	\$ 20.2362	\$ 1,409.7906
944	Gasoline/Service Station	0.160000	per pump	\$ 102.7872	\$ 3.0836	\$ 1.5418	\$ 107.4126
945	Gasoline Station w/Convenience Market	0.216000	per pump	\$ 138.7627	\$ 4.1628	\$ 2.0814	\$ 145.0069
947	Self-Service Car Wash	0.200000	per stall	\$ 128.4840	\$ 3.8545	\$ 1.9272	\$ 134.2657

Notes: ITE Code means the land use code assigned in the *Trip Generation* manual published by the Institute of Transportation Engineers, 9th Edition.

n/a - not applicable. Fee taken from the *Calculation of Housing Unit Fee* table.

"Square foot" means square foot of gross building floor area.

Parks and Recreation Facilities

Public recreational opportunities are available in Senoia through a number of parks facilities and programs operated by the City. Demand for recreational facilities is almost exclusively related to the city's resident population. Businesses make some incidental use of public parks for office events, company picnics, etc., but the use is minimal compared to that of the families and individuals who live in the city. Thus, the parks and recreation impact fee is based on future residential growth.

■ Service Area

Parks and recreational facilities are made available to the city's population without regard to the part of town within which the resident lives. Thus, the entire city is considered a single service area for parks & recreation.

■ Level of Service

The determination of Level of Service (LOS) standards begins with an inventory of existing City facilities.

Table 20 shows the current inventory of parks and recreation components provided by the City. The inventory includes two public parks, six trails, a variety of recreation components used in both passive and active recreation areas, and two buildings available for community and group events.

Table 20: Current Inventory of Parks and Recreation Components

Parks & Recreation Facility		Parks & Recreation Facility	
	Number		Number
Parks	Acres	Recreation Buildings	Sq. Feet
Seavy Street Park	11.00	Freeman Sasser Building	2,035
Merimac Lakes Park	40.52	Stone Lodge	1,360
Total Park Acres	51.52	Total Building Floor Area	3,395
Trails	Lineal Feet	Recreation Components	Number
Rock A Way Road Path	6,171	Play Ground & Equipment	1
Howard Road Path	1,720	Pavillion	1
Seavy St. Trail	5,500	ADA Picnic Tables	2
Cumberland Trail	1,750	Picnic Tables	3
Fieldstone trail	1,250	Park Benches	5
Standing Oaks Trail	2,150		
Total Length of Trails	18,541		

The City has invested over 2.8 million dollars in providing and creating its parks and recreation facilities. Table 21 shows the amounts of these expenditures and the years in which they were made.

Table 21: Capital Expense - Equipment and Facilities

Capital Expense	Cost*	Year	2020 NPV**
Freeman Sasser Building	\$ 120,000.00	1995	\$ 201,577.22
Improvements	\$ 37,700.00	1998	\$ 59,507.31
Carpet	\$ 3,741.00	1998	\$ 5,904.96
Roof	\$ 9,342.00	2019	\$ 9,537.85
Stone Lodge	\$ 82,120.00	2008	\$ 105,335.28
Interior Improvements	\$ 63,684.00	2008	\$ 81,687.43
Roof	\$ 8,625.00	2019	\$ 8,805.81
Total Recreation Buildings	\$ 325,212.00		\$ 472,355.86
Seavy Street Park Land	\$ 669,087.08	2005	\$ 863,471.18
Total Park Land	\$ 669,087.08		\$ 863,471.18
Seavy Street Playground Equipment	\$ 34,000.00	2006	\$ 41,063.04
Additional Playground Equipment	\$ 61,684.56	2007	\$ 73,501.04
Mulch	\$ 41,570.00	2007	\$ 49,533.28
Benches	\$ 5,251.98	2008	\$ 6,174.26
Rope Bridge Playground Equipment	\$ 34,228.00	2015	\$ 36,614.85
Park Improvements	\$ 633,935.00	2016	\$ 669,060.45
Concrete Patio for Tables	\$ 5,400.00	2018	\$ 5,547.59
Total Recreation Equipment	\$ 816,069.54		\$ 881,494.51
Merimac Trail Improvements	\$ 43,976.09	2009	\$ 51,006.24
Park Trails	\$ 9,131.58	2008	\$ 10,735.14
CMAQ Trails	\$ 329,247.67	2010	\$ 376,768.24
Rockaway Road Path	\$ 413,513.50	2010	\$ 473,196.22
Multi Use Trail Engineering	\$ 15,070.00	2014	\$ 16,339.70
Multi Use Trail Engineering	\$ 7,425.00	2015	\$ 7,942.77
Ivy Lane/Seavy St Multi-Use Trail	\$ 43,975.00	2017	\$ 45,790.07
Ivy Ridge Trail Improvements	\$ 53,965.00	2018	\$ 55,439.91
Land for Trail	\$ 7,000.00	2018	\$ 7,191.32
Cumberland Park Trail Land	\$ 85,356.95	2019	\$ 86,515.52
Ivy Lane Trail Engineering	\$ 5,000.00	2019	\$ 5,067.87
Total Trail Improvements	\$ 1,013,660.79		\$ 1,135,993.00
Total	\$ 2,824,029.41		\$ 3,353,314.55

*Source: City of Senoia Book Asset Detail by Division, 12/31/19.

**Net Present Value based on Consumer Price Index, ENR Construction Cost Index or ENR Building Cost Index, as applicable.

These figures are then brought forward to what these investments would be in 2020 dollars by applying the Net Present Value calculations discussed in the Adjustments and Credits chapter.

■ Maximum Impact Fee Calculation

The maximum impact fee that could be charged in Senoia for the Parks & Recreation facility category, based on the calculations carried out in this chapter, is shown on Table 22. As noted, Parks and Recreation impact fees are collected from residential development only as housing units are issued building permits.

The '2020 NPV' for each category is transferred to Table 22, below, from Table 21, above. That number is divided by the total existing facilities (from Table 20) to determine a 'per item' amount. That number is also divided by the number of housing units in the city to establish a 'per housing unit' amount of past investment. The 'per 2020 housing unit' is multiplied times the number of new housing units that are expected in the coming 20 years to determine the amount of investment that will be required to serve future growth and development at the same level of service enjoyed today.

To calculate the current (2020) Net Present Value (NPV) of the impact fee eligible cost estimate for the construction of the recreation components, the NPVs are calculated by increasing the current (2020) estimated costs using Engineering News Record's (ENR) 10-year average building cost inflation (BCI) rate for recreation buildings, the CPI for additional park lands, and the 10-year average construction cost index (CCI) rate for all recreation components and trails. All project costs are then reduced to current NPV dollars using the Net Discount Rate.

All of the recreation components needed to serve future growth, of course, will not occur in the current year. However, since the actual pace and timing of construction for the improvements proposed to meet future demand have not been programmed, an 'average' year of 2030 is used for Net Present Value calculations—some improvements will occur earlier for less money, and some later at greater cost. All will average out.



The following are added to the net impact fee to produce the total maximum impact fee:

- An administrative fee (not to exceed 3%); and,
- A share of the cost of preparing the Capital Improvements Element (CIE).

The total impact fees on the following table are transferred to Maximum Impact Fee Schedule in the Introduction Chapter of this report.

Table 22: Calculation of Maximum Impact Fee

	2020 NPV	Total Existing Facilities	Per Each Unit of Measure	Per 2020 Housing Unit	2020 Cost to Support New Growth	2030 NPV
Recreation Buildings	\$ 472,355.86	3,395 sq feet	\$ 139.13	\$ 261.55	\$ 403,048.55	\$ 483,323.63
Park Land	\$ 863,471.18	11 acres	\$ 78,497.38	\$ 478.11	\$ 736,767.51	\$ 873,321.07
Recreation Equipment	\$ 881,494.51	1 park	\$ 881,494.51	\$ 488.09	\$ 752,146.69	\$ 891,550.65
Trail Improvements	\$ 1,135,993.00	18,541 feet	\$ 61.27	\$ 629.01	\$ 969,304.41	\$ 1,038,582.53
Total Cost of Facilities					\$ 2,861,267.16	\$ 3,286,777.88
Minus Funds on Hand					(731,303.67)	(731,303.67)
= Impact Fee Eligible Cost					\$ 2,129,963.49	\$ 2,555,474.21
Divided by Increase in Housing Units 2020-40					1,541	1,541
= Net Impact Fee Cost per Housing Unit					\$ 1,382.20	\$ 1,658.32
plus 3% Administration Fee					\$ 41.47	\$ 49.75
plus CIE Preparation Fee					\$ 20.73	\$ 24.87
= Total Maximum Impact Fee per Housing Unit					\$ 1,444.40	\$ 1,732.94

Glossary

The following terms are used in the Impact Fee Methodology Report. Where possible, the definitions are taken directly from the Development Impact Fee Act.

Capital improvement: an improvement with a useful life of ten years or more, by new construction or other action, which increases the service capacity of a public facility.

Capital improvements element: a component of a comprehensive plan adopted pursuant to Chapter 70 of the Development Impact Fee Act which sets out projected needs for system improvements during a planning horizon established in the comprehensive plan, a schedule of capital improvements that will meet the anticipated need for system improvements, and a description of anticipated funding sources for each required improvement.

Development: any construction or expansion of a building, structure, or use, any change in use of a building or structure, or any change in the use of land, any of which creates additional demand and need for public facilities.

Development impact fee: a payment of money imposed upon development as a condition of development approval to pay for a proportionate share of the cost of system improvements needed to serve new growth and development.

Eligible facilities: capital improvements in one of the following categories:

- (A) Water supply production, treatment, and distribution facilities;
- (B) Waste-water collection, treatment, and disposal facilities;
- (C) Roads, streets, and bridges, including rights of way, traffic signals, landscaping, and any local components of state or federal highways;
- (D) Storm-water collection, retention, detention, treatment, and disposal facilities, flood control facilities, and bank and shore protection and enhancement improvements;
- (E) Parks, open space, and recreation areas and related facilities;
- (F) Public safety facilities, including police, fire, emergency medical, and rescue facilities; and
- (G) Libraries and related facilities.

Impact Cost: the proportionate share of capital improvements costs to provide service to new growth, less any applicable credits.

Impact Fee: the impact cost plus surcharges for program administration and recoupment of the cost to prepare the Capital Improvements Element.

Level of service: a measure of the relationship between service capacity and service demand for public facilities in terms of demand to capacity ratios or the comfort and convenience of use or service of public facilities or both.

Project improvements: site improvements and facilities that are planned and designed to provide service for a particular development project and that are necessary for the use and convenience of the occupants or users of the project and are not system improvements. The character of the improvement shall control a determination of whether an improvement is a project improvement or system improvement and the physical location of the improvement on site or off site shall not be considered determinative of whether an improvement is a project improvement or a system

improvement. If an improvement or facility provides or will provide more than incidental service or facilities capacity to persons other than users or occupants of a particular project, the improvement or facility is a system improvement and shall not be considered a project improvement. No improvement or facility included in a plan for public facilities approved by the governing body of the municipality or city shall be considered a project improvement.

Proportionate share: means that portion of the cost of system improvements which is reasonably related to the service demands and needs of the project.

Rational Nexus: the clear and fair relationship between fees charged and services provided.

Service area: a geographic area defined by a municipality, city, or intergovernmental agreement in which a defined set of public facilities provide service to development within the area. Service areas shall be designated on the basis of sound planning or engineering principles or both.

System improvement costs: costs incurred to provide additional public facilities capacity needed to serve new growth and development for planning, design and engineering related thereto, including the cost of constructing or reconstructing system improvements or facility expansions, including but not limited to the construction contract price, surveying and engineering fees, related land acquisition costs (including land purchases, court awards and costs, attorneys' fees, and expert witness fees), and expenses incurred for qualified staff or any qualified engineer, planner, architect, landscape architect, or financial consultant for preparing or updating the capital improvement element, and administrative costs, provided that such administrative costs shall not exceed 3 percent of the total amount of the costs. Projected interest charges and other finance costs may be included if the impact fees are to be used for the payment of principal and interest on bonds, notes, or other financial obligations issued by or on behalf of the municipality or city to finance the capital improvements element but such costs do not include routine and periodic maintenance expenditures, personnel training, and other operating costs.

System improvements: capital improvements that are public facilities and are designed to provide service to the community at large, in contrast to "project improvements."

Nonresidential Land Use Definitions

The following definitions below are the official definitions for interpretation in the City's impact fee program (but may differ from Zoning Ordinance definitions of allowable land uses). The definitions are derived from the Institute of Transportation Engineers' *Trip Generation Manual (9TH edition)*. In some cases, interpretation of the definition is required. This is the role of the Administrator, though the applicant can appeal the interpretation.

Land Use Category	ITE Code*	Description
All Suites Hotel	311	Places of lodging that provide sleeping accommodations, a small restaurant and lounge, and a small amount of meeting space. Each suite includes a sitting room and separate bedroom, and limited kitchen facilities
Amusement Park	480	An outdoor facility that contains rides, entertainment, refreshment stands, and picnic areas.
Apparel Store	876	Individual store specializing in the sale of clothing.
Arena	460	Large indoor structure in which spectator events are held. These events vary from professional ice hockey and basketball to non-sporting events such as concerts, shows, or religious services.
Automobile Sales	841	Dealerships offering new or used cars for sale. Automobile services, parts sales and substantial used car sales may also be available. Some dealerships also include leasing options, truck sales and servicing.
Auto Parts Store	843	Facilities specializing in the sale of automobile parts for do-it-yourself maintenance and repair. Items sold at these facilities include items such as spark plugs, oil, batteries and a wide range of automobile parts. These facilities are not equipped for on-site vehicle repair.
Bowling Alley	437	A recreational facility that primarily provides lanes for bowling. A small lounge, restaurant and/or snack bar, video games, and pool tables may also be available as accessory uses.
Building Materials and Lumber Store	812	A free-standing building that sells hardware, building materials and lumber. The lumber may be stored in the main building or in a yard or storage sheds. (In contrast, see Hardware/Paint Store below.)
Business Park Building	770	A flex-type or incubator one- or two-story building served by a common roadway system. The tenant space is flexible and lends itself to a variety of uses; the rear side of the building is usually served by a garage door. Tenants may be start-up companies or small mature companies that require a variety of space. The space may include offices, retail and wholesale stores, restaurants, recreational areas and warehousing, manufacturing, light industrial, or scientific research functions.

Land Use Category	ITE Code*	Description
Cemetery	566	A place for burying the deceased, possibly including buildings used for funeral services, a mausoleum, and a crematorium.
Church/Place of Worship	560	Any building providing public religious worship facilities. A church, synagogue or any other religious facility generally houses an assembly hall or sanctuary, meeting rooms, classrooms, and occasionally, dining, catering or party facilities.
Clinic	630	Any facility that provides limited diagnostic and outpatient care but is unable to provide prolonged in-house medical and surgical care. Clinics often have lab facilities or a pharmacy.
Convenience Market (Open 24 Hours)	851	Open 24 hours per day. These stores sell convenience foods, newspapers, magazines, and often beer and wine; and they do not have gasoline pumps.
Convenience Market with Gasoline Pumps	853	These stores sell gasoline, convenience foods, newspapers, magazines, and often, beer and wine. This land use includes convenience markets with gasoline pumps where the primary business is the selling of convenience items, not the fueling of motor vehicles. (See Gas Station w/Convenience Market, below.)
Corporate Headquarters Building	714	A single tenant office building that houses the corporate headquarters of a company or organization, which generally consists of offices, meeting rooms, space for file storage and data processing, an employee restaurant or cafeteria, and other service functions. This category includes a regional headquarters building of a state-wide or national company.
Daycare Center	565	A facility that cares for preschool age children, normally during the daytime hours. The facility generally includes classrooms, offices, eating areas, and a playground. After-school care for school age children may also be provided.
Department Store	875	A free-standing facility that specializes in the sale of a wide range of products including apparel, footwear, home products, bedding and linens, luggage, jewelry and accessories.
Discount Club	857	A discount store or warehouse where shoppers pay a membership fee in order to take advantage of discounted prices on a wide variety of items such as food, clothing, tires and appliances; many items are sold in large quantities or bulk.
Discount Supermarket	854	A free-standing retail store selling a complete assortment of food (often in bulk), food preparation and wrapping materials, and household cleaning and servicing items at discounted prices.
Drive-in Bank	912	Contains banking facilities for both the motorist while in a vehicle, and someone who walks into the building.

Land Use Category	ITE Code*	Description
Electronics Superstore	863	A free-standing warehouse type facility, they specialize in the sale of home and vehicle electronic merchandise and generally offer a variety of customer services and centralized cashiering. They typically maintain long store hours seven days a week. Examples of items sold in these stores include televisions, audio and video players and recorders, cameras, software, telephones, computers, and general electronic accessories. Major home appliances may also be sold at these facilities. Electronics superstores are sometimes found as separate parcels within a retail complex with their own dedicated parking.
Factory Outlet Center	823	A shopping center that primarily houses factory outlet stores, attracting customers from a wide geographic area, very often even from a larger area than a regional shopping center.
Fast Food Restaurant	934	<p>This category includes restaurants with drive-through windows. This type of restaurant is characterized by a large drive-through clientele, long hours of service (some are open for breakfast, all are open for lunch and dinner, some are open late at night or 24 hours per day), and high turnover rates for eat-in customers. These limited-service eating establishments do not provide table service. Non-drive-through patrons generally order at a cash register, pay before they eat and pick up their meals at a counter.</p> <p>Examples include Burger King, Chick-fil-A, Captain D’s, Kentucky Fried Chicken, McDonalds, Papa John’s Pizza, Sonic Drive-in, Subway, Taco Bell, Wendy’s, and all cafeterias.</p>
Free-Standing Discount Store	815	Similar to the Free-Standing Discount Superstore land use, but does not contain a full-service grocery department. Usually offers fewer services than a Department Store, has centralized cashiering and a wide range of products. Often the only store on a site, but again, one can find them in mutual operation with their own or other supermarkets, garden centers and service stations, or as part of community-sized shopping centers. Usually maintains long store hours, even on Sunday.
Free-Standing Discount Superstore	813	Similar to the Free-Standing Discount Store land use, with the exception that these also contain a full-service grocery department under the same roof that shares entrances and exits with the discount store area. These stores usually offer a variety of customer services, centralized cashiering, and a wide range of products. They typically maintain long store hours seven days a week. The stores included in this land use are often the only ones on the site, but they can also be found in mutual operation with a related or unrelated garden center and/or service station.
Furniture Store	890	A retail facility that specializes in the sale of furniture and often carpeting. The stores are generally large and include storage areas.

Land Use Category	ITE Code*	Description
Gasoline/Service Station	944	A gasoline/service station where the primary business is the fueling of motor vehicles. These service stations may also have ancillary facilities for servicing and repairing motor vehicles.
Gas Station w/Convenience Market	945	This land use includes gasoline/service stations with convenience markets where the primary business is the fueling of motor vehicles. These service stations may also have ancillary facilities for servicing and repairing motor vehicles. Some commonly sold convenience items are newspapers, coffee or other beverages and snack items that are usually consumed in the car.
General Heavy Industrial	120	Unlike manufacturing facilities, which convert raw materials into products, heavy industrial uses generally involve the assembly of parts into finished products.
General Light Industrial	110	Free-standing facility devoted to a single industrial use, but having an emphasis other than manufacturing. Light industries typical of those included in this category are printing plants, material testing laboratories, and assemblers of data processing equipment.
General Office Building	710	Houses multiple tenants and is the location where affairs of a business, commercial or industrial organization, professional person or firm are conducted. The building is designed to contain a mixture of tenants including professional services, insurance companies, investment brokers, company headquarters, and services for the tenants such as a bank or savings and loan, a restaurant or cafeteria, and service retail facilities.
Golf Course	430	Includes 9-, 18-, 27- or 36-hole golf courses and may include a private country club. Some sites have driving ranges and clubhouses with a pro shop and/or restaurant, lounge or banquet facilities.
Hardware/Paint Store	816	Generally, a free-standing building where the primary business is the sale of hand tools and power tools for repairs, maintenance and construction work; and/or house paint, paint brushes and other painting accessories.
Health/Fitness Center	492	Health/fitness centers are privately-owned facilities that primarily focus on individual fitness or training. Typically, they provide exercise classes; weightlifting, fitness and gymnastics equipment; spas; locker rooms; and small restaurants or snack bars. This land use may also include ancillary facilities, such as swimming pools, whirlpools, saunas, tennis, racquetball and handball courts and limited retail.
High-Cube Warehouse	152	Highly mechanized facilities used for the storage of manufactured goods prior to their distribution to retail outlets, distribution centers or other warehouses. These facilities generally consist of large steel or masonry shell buildings, with a typical ceiling height of 24 feet or more. They are also characterized by a small employment count due to the high level of mechanization, may include an office component, and some limited assembly and repackaging may occur.

Land Use Category	ITE Code*	Description
High-Turnover (Sit-Down) Restaurant	932	<p>Sit-down, full service eating places (“sometimes called Family Restaurants”) where customers generally stay less than one hour. Restaurants in this group are usually moderately priced and frequently belong to chains. These restaurants generally serve lunch and dinner, sometimes breakfast, and are sometimes open 24 hours a day. Reservations are typically not taken. Patrons wait to be seated, are served by a waiter or waitress, order from a menu at the table and may pay at the table. The restaurant may include a bar as an accessory use.</p> <p>Examples include: Applebee’s, Huddle House, IHOP, Longhorn Steakhouse, Olive Garden, Ruby Tuesday, and Waffle House. For contrast, see also Fast Food Restaurant (ITE 934) and Quality Restaurant (ITE 931).</p>
Home Improvement Superstore	862	<p>A free-standing warehouse type facility, they specialize in the sale of home improvement merchandise and generally offer a variety of customer services and centralized cashiers. They typically maintain long store hours seven days a week. Examples of items sold in these stores include lumber, tools, paint, lighting, wallpaper and paneling, kitchen and bathroom fixtures, lawn equipment, and garden plants and accessories. Home improvement superstores are sometimes found as separate parcels within a retail complex with their own dedicated parking.</p>
Hospital	610	<p>Any institution where medical or surgical care and overnight accommodations is given to non-ambulatory and ambulatory patients.</p>
Hotel or Conference Hotel	310	<p>A place of lodging providing sleeping accommodations, and supporting facilities such as restaurants, cocktail lounges, meeting and banquet rooms or convention facilities, limited recreational facilities (pool, fitness room), and/or small retail and service shops.</p>
Intermodal Truck Terminal	030	<p>Facilities where goods are transferred between trucks, trucks and railroads, or trucks and ports. (See also High-Cube Warehouse.)</p>
Manufacturing	140	<p>Places where the primary activity is the conversion of raw materials or parts into finished products. Size and type of activity may vary substantially from one facility to another. In addition to actual production of goods, manufacturing facilities generally also have office, warehouse, research and assorted functions.</p>
Medical-Dental Office Building	720	<p>A facility that provides diagnoses and outpatient care on a routine basis but is unable to provide prolonged in-house medical or surgical care. Usually occupied by a single private physician or dentist, a group of doctors, or several independent physicians or dentists.</p>
Mini-Warehouse	151	<p>A building in which a storage unit or vault is rented for the storage of goods (sometimes called a “self-storage facility”). Each unit is physically separated from other units and access is usually provided through an overhead door.</p>

Land Use Category	ITE Code*	Description
Motel	320	A place of lodging offering sleeping accommodations and possibly a restaurant or breakfast area. Little or no meeting space and few supporting facilities are provided. Access to rooms may be from an interior corridor or from outdoor landings.
Movie Theater	443	Consists of audience seating, one or more screens and auditoriums, and a lobby and refreshment stand.
Nursery (Garden Center)	817	A free-standing building with an outside storage area for planting or landscape stock. These nurseries primarily serve the general public. Some have large greenhouses and offer landscaping services, and may sell lawn care and maintenance supplies, trimmers or mowers. Most have office, storage, and shipping facilities.
Nursery (Wholesale)	818	A free-standing building with an outside storage area for planting or landscape stock. These nurseries primarily serve contractors and suppliers. Some have large greenhouses and offer landscaping services. Most have office, storage, and shipping facilities.
Nursing Home	620	Any facility whose primary function is to provide 24-hour per day care for persons unable to care for themselves. The term is applicable not only to rest homes, but also to chronic care and convalescent homes. Assisted living and continuing care retirement communities can be included in this category.
Pharmacy/Drugstore	880	A retail facility that primarily sells prescription and non-prescription drugs. These facilities may also sell cosmetics, toiletries, medications, stationary, personal care products, limited food products, and general merchandise.
Private Elementary School	520	A privately owned, state accredited school that serves students attending kindergarten through fifth or sixth grade.
Private High School	530	A privately owned, state accredited school that serves students in the ninth through twelfth grade; middle or junior high schools can also be included in this category.
Quality Restaurant	931	A high quality, full service eating establishment with turnover rates generally of at least one hour or longer. Generally, a quality restaurant does not serve breakfast and may or may not serve lunch. Reservations are available and sometimes required. Patrons wait to be seated, are served by a waiter or waitress, and order from a menu at the table. Tables are generally pre-set with table cloths, silverware and napkins. The restaurant may include a lounge or bar as an accessory use. For comparison, see 'High-Turnover (Sit-Down) Restaurant' (ITE 932).
Quick Lubrication Vehicle Shop	941	A business where the primary activity is to perform oil change services for vehicles. Other ancillary services may include preventive maintenance, such as fluid and filter changes. Automobile repair service is generally not provided.

Land Use Category	ITE Code*	Description
Racquet/Tennis Club	491	An indoor or outdoor facility that primarily caters to racquet sports (tennis, racquetball, squash), and may include ancillary facilities such as swimming pools, whirlpools, saunas, weight rooms, snack bars and small retail stores.
Recreational Community Center	495	Facilities similar to and including YMCAs, often including classes and clubs for adults and children; a day care or nursery school; meeting rooms; swimming pools and whirlpools; saunas; tennis, racquetball, handball, basketball and volleyball courts; exercise classes; weightlifting and gymnastics equipment; locker rooms; and a restaurant or snack bar.
Research & Development Center	760	A facility devoted almost exclusively to research and development activities. While they may also contain offices and some light fabrication areas, the primary function is that of scientific research and product or business development.
Self-Service Car Wash	945	Facility that allows for the Manual cleaning of vehicles by providing stalls for the driver to park and wash the vehicle.
Shopping Center	820	<p>An integrated group of commercial establishments that is planned, developed, owned and managed as a unit. It is related to its market area in terms of size, location, and type of store.</p> <p><i>A single impact fee is charged when the shopping center is first issued a building permit. Individual stores, shops, movie theaters, eating establishments and other uses that locate within a shopping center building from time to time are not charged an impact fee because the initial shopping center fee already assumes a wide variety of uses that are commonly found in shopping centers.</i></p>
Single-Tenant Office Building	715	A free-standing building exclusively occupied by one business or company and generally contains its offices, meeting rooms, space for file storage and data processing, and possibly other service functions including an employee restaurant or cafeteria.
Specialty Retail Center	826	<p>A small strip shopping center that contains a variety of retail shops and specializes in quality apparel, hard goods, and services such as real estate offices, dance studios, florists, and small restaurants.</p> <p><i>A single impact fee is charged when the specialty retail center is first issued a building permit. Individual stores, shops and other uses that locate within a specialty retail center building from time to time are not charged an impact fee because the initial specialty retail center fee already assumes a wide variety of uses that are commonly found in specialty retail centers.</i></p>

Land Use Category	ITE Code*	Description
Supermarket	850	Free-standing retail stores selling a complete assortment of food, food preparation and wrapping materials, and household cleaning items, and may also include automobile supplies, bakeries, snack areas, books and magazines, floral arrangements, greeting cards, cooking and other household items, and video sales or rentals. Limited-service banks, photo centers and pharmacies are often located within supermarkets.
Tennis Courts	490	Indoor or outdoor facilities specifically designed for playing tennis. Other on-site facilities may include limited spectator seating and a parking lot. (See also Racquet/Tennis Club above.)
Tire Store	848	Primary business is the sales and marketing of tires for automotive vehicles. Services offered by these stores usually include tire installation and repair, as well as other limited automotive maintenance or repair services as an accessory use. These stores generally do not contain large storage or warehouse areas.
Tire Superstore	849	A warehouse-like facility with the primary function of selling and installing tires for automobiles and small trucks. Other services provided may include automotive maintenance functions such as wheel alignment or shock and brake service. A tire display, customer waiting lounge and restroom facilities, staff office space, and significant storage area are also provided. General mechanical repairs and body work are usually not conducted at these facilities.
Variety Store	814	A retail store that sells a broad range of inexpensive items (once known as "five and dime stores"). Those that sell a single price are typically referred to as "dollar stores." Items sold at these stores typically include kitchen supplies, cleaning products, home office supplies, food products, household goods, decorations and toys.
Warehousing	150	Facility that is primarily devoted to the storage of materials, often in transit for distribution to retail outlets, distribution centers or other manufacturers. They may also include office and maintenance areas.
Wholesale Market	860	Facilities that generally include large storage and distribution areas for receiving goods and shipping those goods to places such as grocery stores and restaurants. Generally, these markets are characterized by little drive-in business, and truck deliveries and pick-ups at all hours of the day.

*Institute of Transportation Engineers, *Trip Generation Manual*, land use code.