

**DAWSON COUNTY BOARD OF COMMISSIONERS
VOTING SESSION AGENDA - THURSDAY, AUGUST 2, 2018
DAWSON COUNTY GOVERNMENT CENTER ASSEMBLY ROOM
6:00 PM**

A. ROLL CALL

B. INVOCATION

C. PLEDGE OF ALLEGIANCE

D. ANNOUNCEMENTS

E. APPROVAL OF MINUTES

[Minutes](#) of the Voting Session held on July 19, 2018

F. APPROVAL OF AGENDA

G. PUBLIC COMMENT

H. PUBLIC HEARINGS

[1. Adoption](#) of Impact Fees (*1st of 2 hearings. 2nd hearing will be held on August 16, 2018.*)

[2. 2018](#) Millage Rate and Property Tax (*1st of 3 hearings. 2nd hearing will be held at 4 p.m. August 9, 2018, and 3rd hearing will be held at 6 p.m. August 16, 2018.*)

I. CONSENT AGENDA

[1.](#) Consideration of Georgia Department of Administrative Services Vehicle Cooperative Agreement Purchase Request- Chief Deputy Greg Rowan / Purchasing Manager Melissa Hawk

J. NEW BUSINESS

[1.](#) Consideration of Countywide Computer Replacement Program

[2.](#) Consideration of Request to Extend HVAC Services Contract Renewal Period

[3.](#) Consideration of Keep Dawson County Beautiful Executive Director Appointment

K. PUBLIC COMMENT

L. ADJOURNMENT

Backup material for agenda item:

Minutes of the Voting Session held on July 19, 2018

**DAWSON COUNTY BOARD OF COMMISSIONERS
VOTING SESSION MINUTES – JULY 19, 2018
DAWSON COUNTY GOVERNMENT CENTER ASSEMBLY ROOM
25 JUSTICE WAY, DAWSONVILLE
6:00PM**

ROLL CALL: Those present were Chairman Thurmond; Commissioner Fausett, District 1; Commissioner Gaines, District 2; Commissioner Hamby, District 3; Commissioner Nix, District 4; County Manager Headley; County Attorney Frey; County Clerk Cloud; and interested citizens of Dawson County.

INVOCATION: Chairman Thurmond

PLEDGE OF ALLEGIANCE: Chairman Thurmond

ANNOUNCEMENTS:

None

APPROVAL OF MINUTES:

Motion passed unanimously to approve the minutes from the Voting Session held on July 3, 2018. Fausett/Gaines

APPROVAL OF AGENDA:

Motion passed unanimously to approve the agenda as presented. Gaines/Hamby

PUBLIC COMMENT:

None

ALCOHOL LICENSES:

New Alcohol License (Retail Consumption on Premises of Beer) - Golden Pocket US LLC d/b/a Pokeyaki

Motion passed unanimously to approve the New Alcohol License (Retail Consumption on Premises of Beer) - Golden Pocket US LLC d/b/a Pokeyaki. Nix/Gaines

Alcohol License Transfer (Retail Package Sale of Beer, Wine and Distilled Spirits) - Neya LLC d/b/a Dawson Fine Wine & Spirits

Motion passed unanimously to approve the Alcohol License Transfer (Retail Package Sale of Beer, Wine and Distilled Spirits) - Neya LLC d/b/a Dawson Fine Wine & Spirits. Gaines/Hamby

NEW BUSINESS:

Consideration of Request for Funds to Renovate Chamber of Commerce Office for Economic Development Purposes

Motion passed unanimously to approve the Request for Funds to Renovate the Chamber of Commerce Office for Economic Development Purposes. The \$14,470 will come from capital improvement funds. Gaines/Fausett

Consideration of Dawsonville Self Storage Site Plan as Required by Zoning Stipulation

Motion passed unanimously to approve the Dawsonville Self Storage Site Plan as Required by Zoning Stipulation with the modification that additional plants be added to the site's Georgia 400 side to provide a landscape buffer. Nix/Gaines

Consideration of Request to Adopt Update to Capital Improvements Element of Comprehensive Plan

Motion passed unanimously to approve the Request to Adopt the Update to the Capital Improvements Element of the Comprehensive Plan. Fausett/Gaines

Consideration to Participate in Class-Action Lawsuit to Recover Unpaid Balance on Payment in Lieu of Taxes Payments

Motion passed unanimously to approve Participation in a Class-Action Lawsuit to Recover the Unpaid Balance on Payment in Lieu of Taxes Payments. Fausett/Nix

Consideration to Retain Blasingame, Burch, Garrard & Ashley to Represent County in Multi-District Opioid Litigation

Motion passed unanimously to approve Retaining Athens, Georgia-based Blasingame, Burch, Garrard & Ashley to Represent Dawson County in Multi-District Opioid Litigation. Gaines/Hamby

PUBLIC COMMENT:

None

ADJOURNMENT:

APPROVE:

ATTEST:

Billy Thurmond, Chairman

Kristen Cloud, County Clerk

Backup material for agenda item:

Adoption of Impact Fees (*1st of 2 hearings. 2nd hearing will be held on August 16, 2018.*)



Impact Fee Methodology Report



Dawson County Impact Fee Program

Including the following
public facility categories:

Library Services
Parks and Recreation
Fire Protection
Law Enforcement
Road Improvements

Final: July 12, 2018

ROSS+associates

urban planning & plan implementation

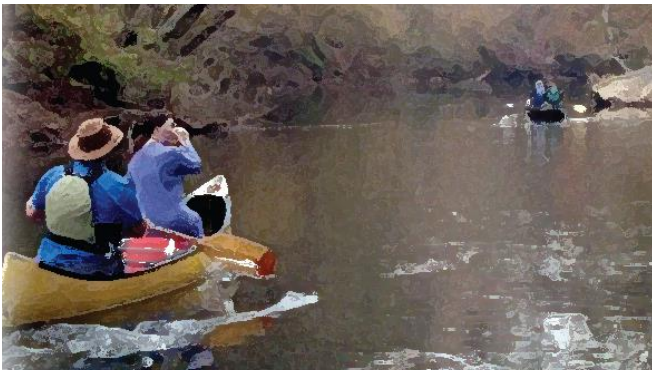
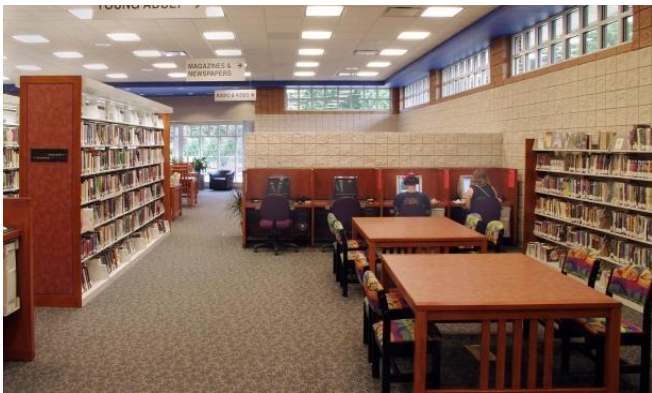


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Introduction

■ Looking Ahead

Forecasts indicate major growth ahead for Dawson County as people continue to move up the GA 400 corridor, propelled by growth in the Atlanta Metro Area, and attracted to favorable housing prices, a great school system, and avoiding the increasingly crowded, traffic congested Forsyth County. Over the next 22 years to 2040, it is expected that about one-half of the people that will be living in Dawson County and the housing they occupy are not here today. This equates to a doubling of the population and housing supply over 2017—2.04 times as many people and 1.95 times as many housing units as today (accompanied with an increase in average household size).

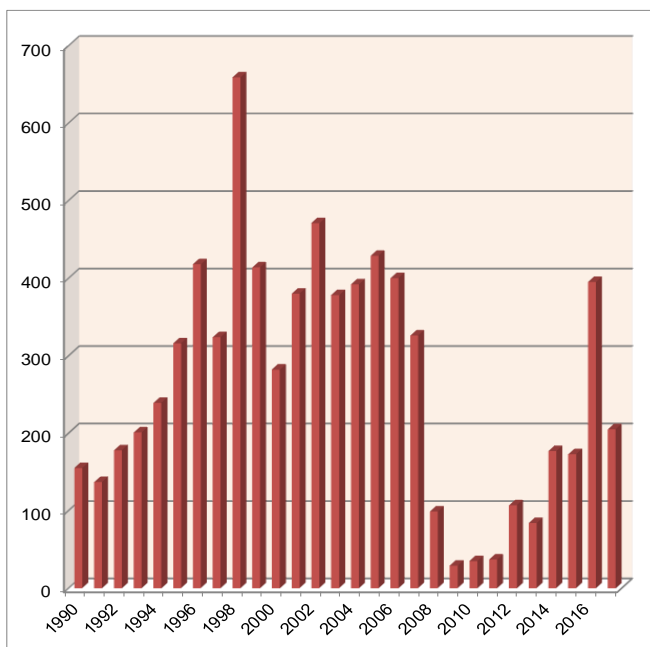
This is not as unprecedented as it seems. Looking back over the past 22 years, since 1995 the county's population has more than doubled, from 11,888 to 24,517—a 52% increase—in spite of the housing market crash of 2008 and the ensuing Great Recession.

Building permit data tell the story. Going back to 1990, the county was on a clear upswing in development, trending higher and higher overall, slipping a bit in 2006, and then plummeting with the nationwide housing market crash.

Calendar Year **New Housing Units Permitted**

1990	155
1991	137
1992	178
1993	201
1994	239
1995	316
1996	418
1997	324
1998	659
1999	414
2000	282
2001	380
2002	471
2003	378
2004	392
2005	429
2006	400
2007	326
2008	99
2009	29
2010	35
2011	37
2012	107
2013	84
2014	177
2015	173
2016	395
2017	205

Residential Building Permit Activity - Dawson County



Source: US Bureau of the Census, annual building permit data, 1990-2015; Dawson County 2016-2017.

Recovery from the crash was slow but steady—even outpacing the rebound in Gainesville-Hall County and the Atlanta Metro Area on an annual percent increase basis. Most recently, the county's housing industry has regained its footing and permits are clearly on the rise.

Though not as robust as population growth, nonresidential growth forecasts indicate an almost doubling in the number of private-sector jobs with a 41% growth and a 1.7 multiplier. (These numbers exclude government, construction and agricultural workers, since they are not assessed impact fees.) According to Woods & Poole Economics, Inc., the county will see its greatest

increase in retail trade, followed by service industries, insurance/finance and real estate, and health care.

What this means is that Dawson County 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 attracts new growth and investment tomorrow and that the population enjoys today.

■ Impact Fees

Impact fees present a potential revenue source in the on-going search for public facilities funding, which this report examines.

We identify the current levels of service provided throughout the county and the desired levels of service for the future in order to quantify the capital facilities needed to achieve the Dawson County's goals for the future. Based on that analysis, calculations have been carried out in order to identify what portion of future capital facilities could be funded through impact fee collections.

In this report capital costs have been examined for six public facility categories: library services, parks & recreation, public safety (including fire protection, emergency management, and law enforcement), and road improvements. Based on plans of the County and projections of future capital investment needs, the portion of future capital costs that could be met through impact fees has been calculated. In short, impact fees could be used to fund a large portion of the capital costs in these public facility categories, and at the desired Level of Service standards, over the next 22 years to 2040.

In the end, impact fees represent a potential funding source that must be balanced against other needs of the County. In this report the maximum allowable impact fee for each public facility category has been calculated; this is the most that could be charged. The impact fee amount ultimately charged will represent a shifting of the burden to fund these capital projects from the tax base as a whole, to the new growth and development actually demanding the services being added through these projects.

The goal is the essence and basis of impact fees: everyone pays their fair share of the capital improvements needed to serve them on an equal basis.

Impact Fees Authorized

Under State law, the County can collect money from new development based on that development's proportionate share—the 'fair share'—of the cost to provide the facilities it needs. The State law allows impact fees to be collected in the categories of libraries, public safety, parks, and roads, among others. Ultimately, and importantly, the services provided in the public facility categories for which impact fees are being charged must be the same for both the existing community and future growth.

Impact fees are authorized in Georgia under Code Section 37-71, the *Georgia Development Impact Fee Act* (DIFA), and are administered by the Georgia Department of Community Affairs (DCA) under Chapter 110-12-2, *Development Impact Fee Compliance Requirements*. Impact fees are a form of revenue authorized by the State, and strictly defined and regulated through State law. The provisions of the DIFA are extensive, in order to assure that new development pays no more than its fair share of the costs and that impact fees are not used to solve existing service deficiencies.

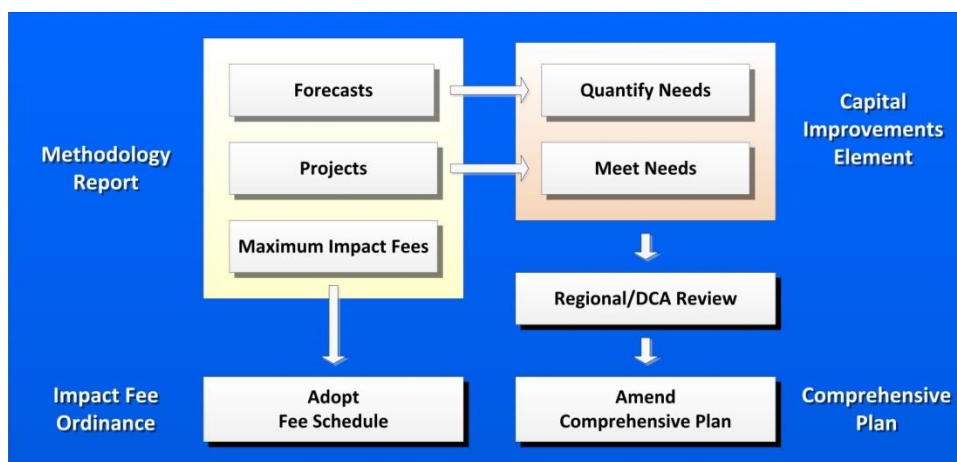
Impact Fee Documentation

One document required for the collection of impact fees is called the Capital Improvements Element (CIE), and is adopted as a chapter, or 'element', of the County's Comprehensive Plan. As defined by the Georgia Development Impact Fee Act (DIFA), the CIE must include certain calculations and information, and those are included in this report along with additional information regarding the amount that could be charged in an impact fee program. The calculations and information, repeated (as applicable) for each public facility category for which an impact fee will be charged, are:

- a **projection of needs** for the planning period of the adopted Comprehensive Plan;
- 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 will be provided;
- a **schedule of improvements** listing impact fee related projects and costs for the planning period of the adopted Comprehensive Plan;
- a description of **funding sources** for the planning period of the adopted Comprehensive Plan;
- The calculation of the gross impact of new development, credits, and **net impact cost**; and
- A schedule of **maximum impact fees** that could be adopted, by land use category.

The following diagram illustrates the documents and their interrelationship in an impact fee program.



This Methodology Report contains the growth forecasts for the county, identifies capital projects that would be needed to meet the County's Level of Service standards, and presents all of the calculations related to establishing the maximum impact fees that could be charged for each public facility category.

The forecasts and the identified capital improvement projects go into the Capital Improvements Element which, in turn, will be reviewed by the Georgia Mountains Regional Commission (GMRC) and DCA for compliance with the state's requirements. Once approved, the County would adopt the CIE as an amendment to its Comprehensive Plan.

The maximum impact fees established in this Methodology Report are intended to generate discussion and determination by the Board of Commissioners as to the appropriate fees to be charged. The state law provides that new growth and development may not be charged more than their 'fair share' of the cost of capital improvements that will serve them. The maximums establish that ceiling beyond which the County cannot go. Lower fees, however, are fully within the purview of the County Commission.

Once determined, the new fees are summarized in an Impact Fee Schedule and amended to the County's Impact Fee Ordinance to authorize their collection.

■ Editorial Conventions

This report observes the following conventions:

- The capitalized word 'County' applies to the government of Dawson County, the Board of Commissioners or any of its departments or officials, as appropriate to the context. An example is "the County has adopted an impact fee ordinance".
- The lower case word 'county' refers to the geographical area of Dawson County, as in "the population of the county has grown".

- The same conventions are applied to the words 'City' and 'city', 'State' and 'state'.
- 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.

Updating the Impact Fee Program

Dawson County adopted its impact fee program in 2006, including its initial Capital Improvements Element, Impact Fee Ordinance and Impact Fee Schedule. Impact fee collections were suspended in 2009 in response to the worsening economic conditions brought on by the Great Recession. This Methodology Report updates the County’s documentation, including the recognition of current prices and costs for capital equipment and facilities, and extends the horizon of the program to 2040.

Adoption of a new CIE and fee schedule would therefore update the County’s program that has been in place for many years.

■ Eligible Facilities

The following table shows the facility categories that are eligible for impact fee funding under Georgia law and that are included in the County’s current impact fee program. The service area for each public facility category—that is, the geographical area served by the facility category—is also given, along with the basis for the standard adopted as the Level of Service to be delivered for each facility category. All the listed categories are considered in this report.

Table 1: Overview of Impact Fee Program - Facilities

	Eligible Facilities	Service Area	Level of Service Standard Based on ...	Historic Funding Sources
Library Services	Library facilities including collection materials	Countywide	Square footage and number of collection materials per dwelling unit	General Fund, State Grants, impact fees
Parks and Recreation	Park acres, recreation components	Countywide	Number of acres and recreation components per dwelling unit	General Fund, SPLOST and impact fees
Fire Protection	Fire stations, fire trucks & auxiliary vehicles	Countywide	Square footage and number of vehicles per day-night population	General Fund, SPLOST and impact fees
Law Enforcement	Sheriff's administration space and inmate detention	Countywide	Square footage of facilities per day-night population	General Fund, SPLOST and impact fees
Road Improvements	Road projects providing new trip capacity	Countywide	LOS "D" for entire road network	General Fund, SPLOST and impact fees

Terms used in Table 1:

Eligible Facilities under the State Act are limited to capital items having a life expectancy of at least 10 years, such as land, buildings and other facilities, and major rolling stock (such as fire trucks). Impact fees cannot be used for the maintenance, supplies, personnel salaries, or other operational costs, or for short-term capital items such as computers, furniture or automobiles. None of these costs are included in the impact fee system.

Service Areas are the geographic areas that the facilities serve, and the areas within which the impact fee can be collected. Monies collected in a service area for a particular type of facility may only be spent for that purpose, and only for projects that serve that service area.

Level of Service Standards are critical to determining new development's fair share of the costs. The same standards must be applied to existing development as well as new to assure that each is paying only for the facilities that serve it. New development cannot be required to pay for facilities at a higher standard than that available to existing residents and businesses, nor to subsidize existing facility deficiencies.

■ Maximum Impact Fee Schedule

The summary fee schedule presented here shows the **maximum impact fee** for the public facility categories included in this report that could be charged in Dawson County for each of the land use categories shown, based on the calculations carried out in this report. The 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 credit based upon anticipated tax contributions from new development, as well as a 3% fee for administration of the Impact Fee Program and a charge for recoupment of the cost to prepare the CIE. The 'Total Maximum Fee' shown in the last column is a summary of all of the maximum fees allowed in each public facility category. As discussed below, the County could not charge more than the maximum in any given public facility category, only less.

To read the table, 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, industrial and warehouse uses are grouped together, as are all retail uses. Next, find the 'Total Maximum Fee' figure on the right of the row. 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.*

Adoption of Impact Fees

As noted, the fee schedule shows the **maximum** impact fee that could be adopted under State law. The County 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 for all land uses in the category), but individual land use categories within the particular public facility category cannot be individually reduced or deleted as part of the Impact Fee Schedule. (For alternatives, see the Reductions in Impact Fee Assessments section later in this chapter.)

It must be remembered that any across-the-board reduction in the maximum allowable impact fee must be funded ultimately with other revenue—General Fund or SPLOST, for instance—to make up the shortfall in collections. An alternate approach is to determine that individual projects that are eligible to be funded with impact fees will, instead, be funded through other revenue sources (such as SPLOST, bonds, General Fund taxes, or other income sources).

Table 2: Summary Maximum Impact Fee Schedule

Land Use	Library Services	Parks & Recreation	Fire Protection	Road Projects	Total Maximum Fee	Unit of Measure
Residential						
Single-Family Detached Housing	\$ 550.46	\$ 1,748.43	\$ 743.51	\$ 329.76	\$ 3,372.16	per dwelling
Apartment	\$ 550.46	\$ 1,748.43	\$ 743.51	\$ 230.35	\$ 3,272.75	per dwelling
Residential Condominium/Townhouse	\$ 550.46	\$ 1,748.43	\$ 743.51	\$ 201.26	\$ 3,243.66	per dwelling
Port and Terminal						
Intermodal Truck Terminal	\$ -	\$ -	\$ 0.44	\$ 0.31	\$ 0.76	per square foot
Industrial/Agricultural						
General Light Industrial	\$ -	\$ -	\$ 0.72	\$ 0.22	\$ 0.94	per square foot
General Heavy Industrial	\$ -	\$ -	\$ 0.57	\$ 0.05	\$ 0.62	per square foot
Manufacturing	\$ -	\$ -	\$ 0.56	\$ 0.12	\$ 0.68	per square foot
Warehousing	\$ -	\$ -	\$ 0.29	\$ 0.11	\$ 0.40	per square foot
Mini-Warehouse	\$ -	\$ -	\$ 0.02	\$ 0.08	\$ 0.10	per square foot
High-Cube Warehouse	\$ -	\$ -	\$ 0.02	\$ 0.05	\$ 0.08	per square foot
Lodging	\$ -	\$ -	\$ -	\$ -	\$ -	
Hotel or Conference Motel	\$ -	\$ -	\$ 178.18	\$ 283.00	\$ 461.18	per room
All Suites Hotel	\$ -	\$ -	\$ 156.37	\$ 169.74	\$ 326.11	per room
Motel	\$ -	\$ -	\$ 137.45	\$ 195.02	\$ 332.47	per room
Recreational						
Golf Course	\$ -	\$ -	\$ 76.81	\$ 148.39	\$ 225.21	per acre
Bowling Alley	\$ -	\$ -	\$ 0.31	\$ 0.98	\$ 1.29	per square foot
Movie Theater	\$ -	\$ -	\$ 0.46	\$ 2.29	\$ 2.75	per square foot
Arena	\$ -	\$ -	\$ 1,042.38	\$ 981.34	\$ 2,023.73	per acre
Amusement Park	\$ -	\$ -	\$ 2,844.37	\$ 2,230.62	\$ 5,074.99	per acre
Tennis Courts	\$ -	\$ -	\$ 76.27	\$ 478.75	\$ 555.03	per acre
Racquet/Tennis Club	\$ -	\$ -	\$ 0.10	\$ 0.41	\$ 0.51	per square foot
Health/Fitness Center	\$ -	\$ -	\$ 0.22	\$ 0.97	\$ 1.19	per square foot
Recreational Community Center	\$ -	\$ -	\$ 0.39	\$ 0.99	\$ 1.38	per square foot
Institutional						
Private Elementary School	\$ -	\$ -	\$ 0.31	\$ 0.43	\$ 0.73	per square foot
Private High School	\$ -	\$ -	\$ 0.20	\$ 0.38	\$ 0.58	per square foot
Church/Place of Worship	\$ -	\$ -	\$ 0.11	\$ 0.28	\$ 0.39	per square foot
Day Care Center	\$ -	\$ -	\$ 0.88	\$ 0.27	\$ 1.16	per square foot
Cemetery	\$ -	\$ -	\$ 25.47	\$ 147.46	\$ 172.92	per acre
Medical						
Hospital	\$ -	\$ -	\$ 0.92	\$ 0.35	\$ 1.27	per square foot
Nursing Home	\$ -	\$ -	\$ 0.73	\$ 0.20	\$ 0.93	per square foot
Clinic	\$ -	\$ -	\$ 1.23	\$ 0.84	\$ 2.07	per square foot

Updating the Impact Fee Program

Land Use	Library Services	Parks & Recreation	Fire Protection	Road Projects	Total Maximum Fee	Unit of Measure
Office						
General Office Building	\$ -	\$ -	\$ 1.04	\$ 0.35	\$ 1.39	per square foot
Corporate Headquarters Building	\$ -	\$ -	\$ 1.07	\$ 0.25	\$ 1.32	per square foot
Single-Tenant Office Building	\$ -	\$ -	\$ 0.98	\$ 0.37	\$ 1.36	per square foot
Medical-Dental Office Building	\$ -	\$ -	\$ 1.27	\$ 1.15	\$ 2.42	per square foot
Research and Development Center	\$ -	\$ -	\$ 0.92	\$ 0.26	\$ 1.17	per square foot
Business Park	\$ -	\$ -	\$ 0.96	\$ 0.40	\$ 1.36	per square foot
Retail						
Building Materials and Lumber Store	\$ -	\$ -	\$ 0.44	\$ 1.26	\$ 1.70	per square foot
Free-Standing Discount Superstore	\$ -	\$ -	\$ 0.30	\$ 1.32	\$ 1.62	per square foot
Variety Store	\$ -	\$ -	\$ 0.30	\$ 1.08	\$ 1.38	per square foot
Free-Standing Discount Store	\$ -	\$ -	\$ 0.62	\$ 1.21	\$ 1.83	per square foot
Hardware/Paint Store	\$ -	\$ -	\$ 0.30	\$ 0.71	\$ 1.01	per square foot
Nursery (Garden Center)	\$ -	\$ -	\$ 0.98	\$ 1.91	\$ 2.88	per square foot
Nursery (Wholesale)	\$ -	\$ -	\$ 0.52	\$ 1.09	\$ 1.61	per square foot
Shopping Center	\$ -	\$ -	\$ 0.52	\$ 1.11	\$ 1.64	per square foot
Factory Outlet Center	\$ -	\$ -	\$ 0.52	\$ 0.74	\$ 1.27	per square foot
Specialty Retail Center	\$ -	\$ -	\$ 0.62	\$ 1.24	\$ 1.86	per square foot
Automobile Sales	\$ -	\$ -	\$ 0.48	\$ 0.88	\$ 1.36	per square foot
Auto Parts Store	\$ -	\$ -	\$ 0.30	\$ 0.94	\$ 1.24	per square foot
Tire Store	\$ -	\$ -	\$ 0.40	\$ 0.58	\$ 0.98	per square foot
Tire Superstore	\$ -	\$ -	\$ 0.40	\$ 0.58	\$ 0.98	per square foot
Supermarket	\$ -	\$ -	\$ 0.36	\$ 1.52	\$ 1.88	per square foot
Convenience Market (Open 24 Hrs)	\$ -	\$ -	\$ 0.56	\$ 5.11	\$ 5.68	per square foot
Convenience Market w/Gas Pumps	\$ -	\$ -	\$ 0.56	\$ 4.69	\$ 5.25	per square foot
Discount Supermarket	\$ -	\$ -	\$ 0.70	\$ 1.63	\$ 2.34	per square foot
Wholesale Market	\$ -	\$ -	\$ 0.26	\$ 0.14	\$ 0.40	per square foot
Discount Club	\$ -	\$ -	\$ 0.41	\$ 0.88	\$ 1.29	per square foot
Home Improvement Superstore	\$ -	\$ -	\$ 0.30	\$ 0.33	\$ 0.63	per square foot
Electronics Superstore	\$ -	\$ -	\$ 0.30	\$ 0.42	\$ 0.72	per square foot
Apparel Store	\$ -	\$ -	\$ 0.52	\$ 1.12	\$ 1.65	per square foot
Department Store	\$ -	\$ -	\$ 0.62	\$ 0.39	\$ 1.01	per square foot
Pharmacy/Drugstore	\$ -	\$ -	\$ 0.52	\$ 1.25	\$ 1.77	per square foot
Furniture Store	\$ -	\$ -	\$ 0.13	\$ 0.04	\$ 0.16	per square foot
Services						
Drive-in Bank	\$ -	\$ -	\$ 1.50	\$ 1.13	\$ 2.62	per square foot
Quality Restaurant	\$ -	\$ -	\$ 2.33	\$ 1.18	\$ 3.51	per square foot
High-Turnover (Sit-Down) Restaurant	\$ -	\$ -	\$ 2.33	\$ 1.67	\$ 4.00	per square foot
Fast-Food Restaurant	\$ -	\$ -	\$ 3.41	\$ 4.64	\$ 8.05	per square foot
Quick Lubrication Vehicle Shop	\$ -	\$ -	\$ 656.77	\$ 1,150.02	\$ 1,806.78	per service bay
Gasoline/Service Station	\$ -	\$ -	\$ 50.04	\$ 1,167.76	\$ 1,217.79	per pump
Gasoline Station w/Convenience Mkt	\$ -	\$ -	\$ 0.07	\$ 789.40	\$ 789.46	per pump
Self-Service Car Wash	\$ -	\$ -	\$ 62.55	\$ 1,496.41	\$ 1,558.96	per stall

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

All figures shown rounded to whole cents for readability; actual fees generally run to multiple decimal places.

Interpretation

Listed in the fee schedule are the most common land uses as identified in the *Trip Generation Manual*, 9th Edition, 2012, Institute of Transportation Engineers (ITE). Persons per land use for residential uses are determined based on average numbers of persons per household; for non-residential land uses the average number of employees per unit of measure is based on data provided in the ITE *Trip Generation Manual*. As it is impossible, and impractical, to list every possible land use type, following is the methodology that will be used to determine employment for land uses that are not on the actual fee table.

The nomenclature used in the fee schedules may be different from that used by developers. For example, a developer may be building a 35,000 square foot grocery store, but does not see a grocery store on the fee schedule. In this situation, the applicable fee would be found under 'supermarket.' Simply inquiring to the County should clarify any such uncertainty. However, reference to a source document, such as the *North American Industrial Classification System* (from the U.S. Office of Management and Budget; latest edition available on the U.S. Census Bureau website), may be helpful as an objective means of distinguishing among the types of land uses set out in the schedules.

For land uses not specified, a simple approach may be the most useful for most situations: an office type operation can be set at the same rate as a general office building, various retail uses not listed can be set at the same rate as for specialty retail uses, and industrial uses are assumed to be the same as general light industry. For example, a retail land use that does not appear on the impact fee schedule, such as a stained-glass shop, would be assessed the same fee as 'specialty retail'.

■ 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 County 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 that are of special benefit to the County. 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 County 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 Board of Commissioners.

Credits

The County's Impact Fee Ordinance provides for credits against impact fee that can be applied for expenditures made by a development toward the construction or provision of facilities that are included for impact fee funding in the adopted Capital Improvements Element. These credits are often established through a private contractual agreement between the County and the developer or builder (as regulated by the Impact Fee Ordinance).

Exemptions

Exemptions from the established impact fee amounts on the adopted Impact Fee Schedule can be adopted by the Board of Commissioners for development that encourages affordable housing or represents 'extraordinary economic or employment growth'. The exemptions must be spelled out as part of the Impact Fee Ordinance and can be applied by the Board of Commissioners in whole or in part to specified uses based on standards included in the Ordinance. There are currently no exemptions in the Ordinance.

■ 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 encumbered within six 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 Community Work Program Update required.

■ Periodic Review Recommended

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 service areas should be reviewed annually, and should reflect changes in the growth and development of the county. Also, the fiscal elements of the impact fee system should be brought up to current dollars each year.

- The "planning horizon" of this methodology report is 2040; this is intended to match the "horizon" of the County's *Comprehensive Plan* when it is updated in 2018. When the *Comprehensive Plan* is again updated, the methodology report (and impact fee methodologies) should be reviewed and updated as needed to meet any new "horizon".
- The amount of future tax revenue generated by future growth is directly related to the County's population and employment projections. These projections should be reviewed every year against other data, such as building permits and utility hook-ups, to confirm continuing validity or to modify the methodologies.
- Any changes to the employment, dwelling unit and population forecasts in this report (i.e., figures used in future updates to the County's *Comprehensive Plan*) should be reflected in the impact cost calculations.
- Costs should be maintained in present value terms. The land costs for libraries, public safety facilities, roads and parks, as well as the various facility construction costs, should be updated annually. In addition, the cost of collection materials should also be updated to reflect current dollars.

- The library collection material “weed rate” and state contribution towards collection materials purchases should both be reviewed annually, and updated as necessary.
- Projections in tax base growth should be updated each year to reflect actual growth, and to update the average new house values and value/employee then current in future years.
- Any changes in funding strategy for the facilities included in the impact fee program should be reflected in the impact fee calculation.
- New revenue sources, such as implementation of a new SPLOST program, should be reviewed for potential tax credits against impact fees.

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.



Forecasts

Extensive growth and development is forecast for Dawson County over the coming 22 years to 2040 as expansion of the Atlanta Metro Area washes over Forsyth County into Dawson—a process that has already begun.

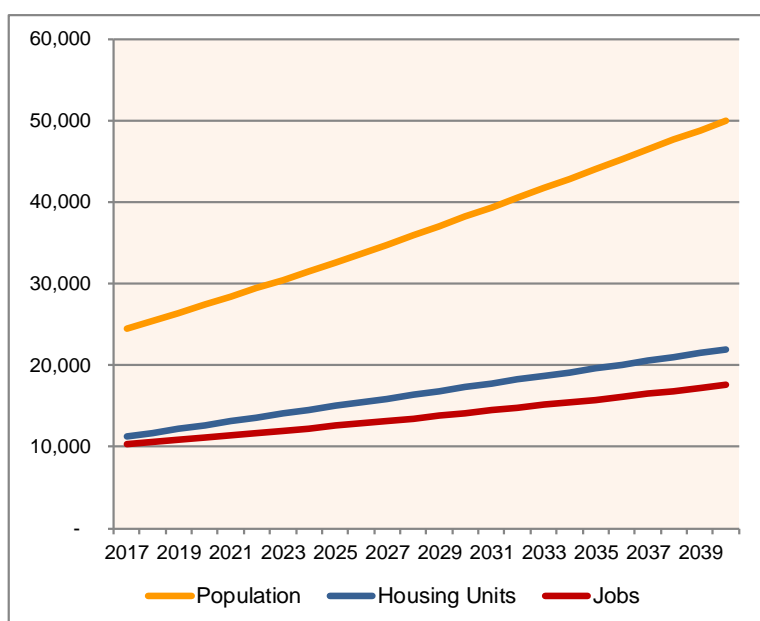


Population projections reflect this massive growth which is expected over the next 22 years. Based on the county’s rebound from the Great Recession and anticipated continuing growth in the housing market, the ultimate population forecast for 2040 is 50,000 people—a doubling of the number of people in the county today.

The numbers in the ‘jobs’ column are private sector, building occupying employment figures and exclude what are referred to as ‘non-building related’ jobs. ‘Non-building related’ jobs are those that do not normally require issuance of a building permit, and thus would not be assessed an impact fee. Such jobs include any employment that is considered to be transitory in nature, such as those working on construction sites, or are strictly land-based such as farming and other agricultural workers. In addition, the number of workers employed by governmental entities (city, county, state and federal) is excluded because governments are exempt from impact fees.

Table 3: Forecasts of Future Growth

	Population	Housing Units	Jobs
2017	24,517	11,262	10,290
2018	25,453	11,726	10,578
2019	26,412	12,190	10,857
2020	27,394	12,658	11,136
2021	28,396	13,127	11,414
2022	29,418	13,592	11,697
2023	30,459	14,052	11,981
2024	31,519	14,514	12,270
2025	32,595	14,975	12,567
2026	33,687	15,439	12,868
2027	34,794	15,905	13,175
2028	35,915	16,372	13,485
2029	37,048	16,838	13,802
2030	38,193	17,300	14,119
2031	39,348	17,763	14,442
2032	40,512	18,224	14,774
2033	41,684	18,683	15,106
2034	42,863	19,141	15,441
2035	44,047	19,597	15,780
2036	45,235	20,058	16,128
2037	46,425	20,526	16,478
2038	47,617	21,004	16,831
2039	48,809	21,490	17,196
2040	50,000	21,981	17,560



	Population	Housing Units	Jobs
2017	24,517	11,262	10,290
2040	50,000	21,981	17,560
Increase	25,483	10,719	7,270
Percent	51.0%	48.8%	41.4%

By 2040, about a half (51%) of the population in the county will have been generated by new growth; virtually the same is true for the number of housing units at 49%. In other words, population and housing units in 2040 will be about 2 times the numbers today (2.04 and 1.95 times, respectively). Growth in private sector jobs will comprise over 40% of all such jobs in the county today (somewhat less than doubling at 1.7 times 2017).

A much more extensive socioeconomic analysis and description of the growth projections is contained in the Appendix: Future Growth.

Cost 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 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 deflator for future costs). In essence, the present value is considered in light of the value of money as it changes over time as the result 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. 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 2017 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. As will be seen below, the cost of project and building construction has been increasing faster than the CPI inflation rate over the past 10 years.

■ Cost Inflat

Three different cost inflators are used in the impact fee calculations, based on the type of project being considered. For infrastructure projects, such as roads or ball fields, a 'construction cost inflator' is used. For projects that require construction of a structure (such as a fire station), a 'building cost inflator' is used as the appropriate inflation rate. For all non-construction types of projects (such as a fire truck 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 calibrated regionally. For calculation of the CCI and the BCI, costs in 1913 are set at 100.

Construction Cost Inflat

Table 4 uses the example of a calculation of the annual average rate of increase reflected in construction costs. For this analysis, the 2006-2016 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 4: Construction Cost Inflat – CCI

Year	Amount	CCI*		Effect of Inflation	
		1913=100	2006=1.0	CCI	Avg. Rate =
				3.3593423%	
2006	\$ 100,000	4,854.43	1.000000	\$ 100,000.00	\$ 100,000.00
2007		5,136.09	1.058021	105,802.15	103,359.34
2008		5,488.43	1.130604	113,060.39	106,831.54
2009		5,737.82	1.181978	118,197.78	110,420.37
2010		5,742.83	1.183009	118,300.88	114,129.77
2011		5,829.65	1.200893	120,089.33	117,963.78
2012		5,892.64	1.213869	121,386.95	121,926.59
2013		5,983.23	1.232531	123,253.13	126,022.52
2014		6,147.52	1.266375	126,637.47	130,256.05
2015		6,245.74	1.286607	128,660.72	134,631.79
2016		6,277.14	1.293075	129,307.49	139,154.54
				\$ 1,304,696.29	\$ 1,304,696.29

* Construction Cost Index, Atlanta Region, Engineering News Record.

The table shows a construction project that cost \$100,000 in 2006, and how much the same project would cost in each subsequent year using the Construction Cost Index published by Engineering

Cost Adjustments and Credits

News Record for the Atlanta area. Setting the 2005 Construction Cost Index (CCI) at '1.0,' the increase in the CCI as a multiple of 2006 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 2006-2016 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 construction projects that will begin in future years.

Building Cost Inflator

The inflator for future construction costs for buildings is based on ENR's Building Cost Index (BCI) for each year from 2006 through 2016, and is calculated in the same manner as described above for the Construction Cost Inflator. Table 5 shows the results.

Table 5: Building Cost Inflator – BCI

Year	Amount	BCI*		Effect of Inflation	
		1913=100	2006=1.0	BCI	Avg. Rate =
				1.3671770%	
2006	\$ 100,000	3,611.02	1.000000	\$ 100,000.00	\$ 100,000.00
2007		3,623.91	1.003568	100,356.82	101,367.18
2008		3,721.86	1.030695	103,069.49	102,753.05
2009		3,715.58	1.028954	102,895.44	104,157.86
2010		3,736.56	1.034764	103,476.44	105,581.88
2011		3,837.47	1.062710	106,271.03	107,025.38
2012		3,970.93	1.099670	109,967.01	108,488.60
2013		4,022.11	1.113842	111,384.22	109,971.83
2014		4,076.81	1.128991	112,899.07	111,475.34
2015		4,108.05	1.137641	113,764.09	112,999.41
2016		4,126.72	1.142812	114,281.23	114,544.31
				\$ 1,178,364.84	\$ 1,178,364.84

* Building Cost Index, Atlanta Region, Engineering News Record.

CPI Inflator

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 6 shows the CPI figures for every year since 1982, with the 1982-84 index being 100.

Table 6: Non-Construction Cost Inflator – CPI

Year	Amount	CPI*		Present Value: CPI	Long Term Inflator =	10-Year Inflator =
		1982-84=100	2016=1.0			
				2.365497%		
1982	\$ 10,000.00	96.5	2.48712	\$ 24,871.21	\$ 22,142.28	
1983	\$ 10,000.00	99.6	2.40971	\$ 24,097.11	\$ 21,630.61	
1984	\$ 10,000.00	103.9	2.30998	\$ 23,099.82	\$ 21,130.76	
1985	\$ 10,000.00	107.6	2.23055	\$ 22,305.50	\$ 20,642.46	
1986	\$ 10,000.00	109.6	2.18985	\$ 21,898.46	\$ 20,165.45	
1987	\$ 10,000.00	113.6	2.11274	\$ 21,127.39	\$ 19,699.46	
1988	\$ 10,000.00	118.3	2.02880	\$ 20,288.01	\$ 19,244.24	
1989	\$ 10,000.00	124.0	1.93554	\$ 19,355.42	\$ 18,799.54	
1990	\$ 10,000.00	130.7	1.83632	\$ 18,363.21	\$ 18,365.11	
1991	\$ 10,000.00	136.2	1.76217	\$ 17,621.67	\$ 17,940.72	
1992	\$ 10,000.00	140.3	1.71067	\$ 17,106.71	\$ 17,526.14	
1993	\$ 10,000.00	144.5	1.66095	\$ 16,609.49	\$ 17,121.14	
1994	\$ 10,000.00	148.2	1.61948	\$ 16,194.82	\$ 16,725.50	
1995	\$ 10,000.00	152.4	1.57485	\$ 15,748.50	\$ 16,339.00	
1996	\$ 10,000.00	156.9	1.52968	\$ 15,296.82	\$ 15,961.44	
1997	\$ 10,000.00	160.5	1.49537	\$ 14,953.72	\$ 15,592.59	
1998	\$ 10,000.00	163.0	1.47244	\$ 14,724.37	\$ 15,232.28	
1999	\$ 10,000.00	166.6	1.44062	\$ 14,406.19	\$ 14,880.28	
2000	\$ 10,000.00	172.2	1.39377	\$ 13,937.70	\$ 14,536.42	
2001	\$ 10,000.00	177.1	1.35521	\$ 13,552.07	\$ 14,200.51	
2002	\$ 10,000.00	179.9	1.33411	\$ 13,341.14	\$ 13,872.36	
2003	\$ 10,000.00	184.0	1.30439	\$ 13,043.87	\$ 13,551.79	
2004	\$ 10,000.00	188.9	1.27055	\$ 12,705.51	\$ 13,238.63	
2005	\$ 10,000.00	195.3	1.22892	\$ 12,289.15	\$ 12,932.71	1.479985%
2006	\$ 10,000.00	201.6	1.19051	\$ 11,905.12	\$ 12,633.86	\$ 11,582.54
2007	\$ 10,000.00	207.3	1.15754	\$ 11,575.42	\$ 12,341.91	\$ 11,413.62
2008	\$ 10,000.00	215.3	1.11474	\$ 11,147.41	\$ 12,056.71	\$ 11,247.17
2009	\$ 10,000.00	214.5	1.11872	\$ 11,187.22	\$ 11,778.10	\$ 11,083.14
2010	\$ 10,000.00	218.1	1.10067	\$ 11,006.68	\$ 11,505.93	\$ 10,921.50
2011	\$ 10,000.00	224.9	1.06699	\$ 10,669.88	\$ 11,240.04	\$ 10,762.22
2012	\$ 10,000.00	229.6	1.04535	\$ 10,453.55	\$ 10,980.30	\$ 10,605.27
2013	\$ 10,000.00	233.0	1.03026	\$ 10,302.64	\$ 10,726.57	\$ 10,450.60
2014	\$ 10,000.00	236.7	1.01382	\$ 10,138.18	\$ 10,478.69	\$ 10,298.19
2015	\$ 10,000.00	237.0	1.01262	\$ 10,126.16	\$ 10,236.55	\$ 10,148.00
2016	\$ 10,000.00	240.0	1.00000	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00
1982-16	\$350,000.00			\$ 535,450.12	\$ 535,450.12	
2006-16	\$110,000.00			\$ 118,512.25	← →	\$ 118,512.25

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

By 2016 the CPI had risen considerably over the 1982 CPI. The first column under the 'CPI' heading on the table shows the average annual CPI figures. Using 2016 as the base (2016=1.0), the second column under 'CPI' on the table shows the multipliers that would convert an amount of money spent in each year into current present value dollars.

Using an annual expenditure of \$10,000 as an example, the multipliers on Table 6 yield the figures shown for the CPI on the table under the 'present value' heading. Cumulatively, the \$350,000 spent

over the 1982-2016 period would have a total present value of \$535,450.12 in today's dollars. Considering the present value figures for the \$10,000 annual expenditures, an average annual inflation rate of over 2.365% yields the same total amount over the 1982-2016 period.

The 34-year average of annual CPI change (the period of 1982-2016) shown on Table 6 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 2006 to 2016, an average annual inflation rate of slightly under 1.48% best captures the change over that period. This lower inflation rate (compared to the 1982-2016 period) is assumed to be experienced 'on average' in future years, and is used for inflator calculations for future non-construction expenditures.

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 fire station), the current cost estimate for the project is inflated into the future using the average Building Cost Inflator (from Table 5) 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 0.5%) since this reflects the present value of a future amount of money.

For other construction projects (such as recreation facilities and roads), the current cost estimate for the project is inflated into the future using the average Construction Cost Inflator (from Table 4) 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 fire truck purchases or land acquisition), the 10-year average CPI inflator (from Table 6) 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.

■ SPLOST Tax Credits

Given the County's past history with funding capital improvements through SPLOST sales taxes, bonds or a combination of both, it is assumed that similar funding approaches will be used in the future, instead of using property taxes through the General Fund.

Future SPLOST Financing

Some capital projects in the impact fee program have portions that are not impact fee eligible. These are situations in which a project serves both a future (impact fee eligible) need and a need to provide service to the current residents and businesses at the same Level of Service as new growth. These non-eligible portions are the responsibility of the current residents and businesses and are assumed to be financed by future SPLOST programs. However, both existing and future residents and businesses will be paying the SPLOST sales taxes.

To the extent that new growth will be contributing taxes for non-eligible portions of impact fee projects (for which they are not financially responsible), a credit must be applied against these fee collections in order to avoid new growth paying more than their 'fair share' of total costs.

As the county grows, new growth will be paying a larger proportion of the sales taxes each year.

Table 7: Future SPLOST Tax Generation - New Growth

Year	Day-Night Population			Residential Population		
	Total County	New Growth	% New Growth	Total County	New Growth	% New Growth
2017	34,807			24,517		
2018	36,031	1,224	3.40%	25,453	936	2.60%
2019	37,269	2,462	6.61%	26,412	1,895	5.08%
2020	38,530	3,723	9.66%	27,394	2,877	7.47%
2021	39,810	5,003	12.57%	28,396	3,879	9.74%
2022	41,115	6,308	15.34%	29,418	4,901	11.92%
2023	42,440	7,633	17.99%	30,459	5,942	14.00%
2024	43,789	8,982	20.51%	31,519	7,002	15.99%
2025	45,162	10,355	22.93%	32,595	8,078	17.89%
2026	46,555	11,748	25.23%	33,687	9,170	19.70%
2027	47,969	13,162	27.44%	34,794	10,277	21.42%
2028	49,400	14,593	29.54%	35,915	11,398	23.07%
2029	50,850	16,043	31.55%	37,048	12,531	24.64%
2030	52,312	17,505	33.46%	38,193	13,676	26.14%
2031	53,790	18,983	35.29%	39,348	14,831	27.57%
2032	55,286	20,479	37.04%	40,512	15,995	28.93%
2033	56,790	21,983	38.71%	41,684	17,167	30.23%
2034	58,304	23,497	40.30%	42,863	18,346	31.47%
2035	59,827	25,020	41.82%	44,047	19,530	32.64%
2036	61,363	26,556	43.28%	45,235	20,718	33.76%
2037	62,903	28,096	44.67%	46,425	21,908	34.83%
2038	64,448	29,641	45.99%	47,617	23,100	35.84%
2039	66,005	31,198	47.27%	48,809	24,292	36.80%
2040	67,560	32,753	48.48%	50,000	25,483	37.72%

Table 7 shows the percentage of the total that will be comprised of new growth for two scenarios:

On the left portion of the table, the countywide day-night population (i.e., resident population and employees combined; see Appendix: Future Growth for details) is shown and the proportion of the total that will be new growth. This would apply to credits for public facility categories that are countywide in nature and serve both residents and businesses—Fire Protection, Law Enforcement and Road Improvements.

The right-hand portion of the table shows only residential population growth on a countywide basis. These figures would apply to projects for which only residential land uses would be assessed impact fees—Library Services and Parks & Recreation.

■Funds on Hand

The County has impact fee monies from previous collections in its various impact fee accounts. To the extent that the funds have not been retained for previous on-going impact fee projects, the amounts will be applied to new impact fee costs as a credit. The most recently reported fund balances are shown on Table 8.

Table 8: Impact Fee Fund Balances

Libraries	Fire Protection	Detention*	Roads	Parks & Recreation
\$ 5,631.83	\$ 3,237.41	\$ 45,715.05	\$ 1,215.49	\$ 68,292.70

As of end of last fiscal year (12/31/2016).

* To be retained and expended on previous impact fee project (the new jail).

Library Services

■ Introduction

The Dawson County Library System provides library services through a central library facility in Dawsonville and a small satellite branch on Liberty Drive (east of Ga 400). Together, the two facilities contain a total of 14,700 square feet and have a current collection of almost 43,000 materials.



The Dawson County Library is part of the Chestatee Regional Library System and is maintained by financial contributions from Dawson County. The library provides services to all residents of Dawson County through a variety of information and materials, facilities and programs. The library system serves all persons on an equal basis in meeting their educational, recreational, civic, economic and spiritual needs.

Demand for library services is almost exclusively related to the county's resident population. Businesses make some use of public libraries for research purposes, but the use is incidental compared to that of the families and individuals who live in the county. Thus, a library services system impact fee is limited to future residential growth.

■ Service Area

Materials, facilities and services of the Dawson County library system are equally available to the county's population. The entire county is therefore considered a single service district for library services. An improvement in any part of the county increases service to all parts of the county to some extent.

■ Level of Service

The year 2017 Level of Service (LOS) is determined by an inventory of the existing library facilities and collection materials, as shown in Table 9.

Table 9: Inventory of Library Facilities

Facility	Gross Floor Area in Square Feet	Collection Materials
Dawson County Library*	14,700	42,908

*Includes the main branch and the satellite facility.

Level of service calculations, shown in Table 10 below, determine that the facilities provide slightly more than 3.8 collection materials and 1.3 square feet of library space per dwelling unit to serve the current population.

Table 10: Current Level of Service Calculation

Facility	Current Service Population	Current Level of Service
Existing Square Feet	Number of Housing Units (2017)	Square Feet of Floor Area per Housing Unit
14,700	11,262	1.3053
Existing Collection Materials	Number of Housing Units (2017)	Collection Materials per Housing Unit
42,908	11,262	3.8100

■ **Forecasts for Service Area**

Future Demand

The County adopted a Level of Service for library facilities based on the current floor area of facility space, and the current number of collection materials, per dwelling unit. In Table 11, the Level of Service figures are used to calculate future demand in square feet and collection materials between 2017 and 2040. The additional number of forecasted dwelling units to the year 2040 is multiplied by the Level of Service to produce the future demand figures. Future growth will demand almost 14,000 additional square feet of library space by the year 2040 in order to maintain the current Level of Service for all county residents, both existing and future. In the same way, a net increase of almost 41,000 collection materials will need to be added.

Table 11: Future Demand Calculation

Current Level of Service	Service Population Growth	New Growth Demand
Square Feet of Floor Area per Housing Unit	Number of New Housing Units (2017-40)	Square Feet of New Floor Area Needed
1.3053	10,719	13,991
Collection Materials per Housing Unit	Number of New Housing Units (2017-40)	Collection Materials Needed
3.8100	10,719	40,839

Library Services

Table 12 presents the expected facility demand in an annual format. The table shows a future project roughly in pace with the anticipated growth in dwelling units (assuming that construction of a new library branch should begin when about one-half the service demand is reached). Alternately, an expansion of the current main library could be considered, and/or several smaller new branch libraries in various locations around the county. In whatever future configuration, it is the addition of 13,991 square feet that is impact fee eligible.

Table 12: Future Library Facility Projects

Year	New Dwelling Units	Running Total: SF Demanded	Project	Square Footage
2017	0			
2018	464	606		
2019	464	1,212		
2020	468	1,823		
2021	469	2,435		
2022	465	3,042		
2023	460	3,642		
2024	462	4,245		
2025	461	4,847		
2026	464	5,453	New Branch Library	13,991
2027	466	6,061		
2028	467	6,671		
2029	466	7,279		
2030	462	7,882		
2031	463	8,486		
2032	461	9,088		
2033	459	9,687		
2034	458	10,285		
2035	456	10,880		
2036	461	11,482		
2037	468	12,093		
2038	478	12,717		
2039	486	13,351		
2040	491	13,992		
Total	10,719			13,991

Table 13 presents the figures for collection material demand. Materials demanded by new growth are calculated in the first columns by multiplying the Level of Service standard (from Table 11) times the net new dwelling units each year (from Table 3). Thus the 'New Materials Needed (annual)' column represents the number of materials that must be purchased in order to meet new growth's demand in each year. The 'Running Total' column shows the accumulated number of new collection materials that will meet the needs of future residential growth in the county.

However, the Library System discards a few of its collection materials each year as they become worn out, disfigured, broken or out of date. To maintain the collection, these materials need to be replaced with new materials. Since these materials replenish the overall collection, the responsibility for these replacements falls to the current residents and not to new growth.

Over the past several years the discard rate has averaged 0.524% of all materials in the collection. As the collection grows in the future, this discard rate will continue relative to the new materials being acquired. By including the discarded materials for replacement each year, the resulting 'total materials needed (annual)' column reflects the total number of volumes required annually to maintain the LOS once these non-impact fee eligible volumes are discarded. Thus, the new materials that will be needed each year will meet both the demand of new growth and the replenishment of the current collection. A total of 41,048 collection materials will need to be purchased to maintain the Level of Service for new and existing development and to account for discarded volumes.



Table 13: Future Collection Materials Needed

Year	New Growth Demand			Plus Discarded Materials	Total Materials Needed (annual)
	New Dwelling Units	New Materials Needed (annual)	Running Total		
2017	0	0			
2018	464	1,768	1,768	9	1,777
2019	464	1,768	3,536	9	1,777
2020	468	1,783	5,319	9	1,792
2021	469	1,787	7,106	9	1,796
2022	465	1,772	8,878	9	1,781
2023	460	1,753	10,631	9	1,762
2024	462	1,760	12,391	9	1,769
2025	461	1,756	14,147	9	1,765
2026	464	1,768	15,915	9	1,777
2027	466	1,775	17,690	9	1,784
2028	467	1,779	19,469	9	1,788
2029	466	1,775	21,244	9	1,784
2030	462	1,760	23,004	9	1,769
2031	463	1,764	24,768	9	1,773
2032	461	1,756	26,524	9	1,765
2033	459	1,749	28,273	9	1,758
2034	458	1,745	30,018	9	1,754
2035	456	1,737	31,755	9	1,746
2036	461	1,756	33,511	9	1,765
2037	468	1,783	35,294	9	1,792
2038	478	1,821	37,115	10	1,831
2039	486	1,852	38,967	10	1,862
2040	491	1,871	40,838	10	1,881
Total	10,719	40,838		210	41,048

Note: Discard rate = 0.524%

■ Future Costs

New Library Space

The building floor area needed to serve new growth identified in Table 12 is used to calculate the future cost to meet service demand, as shown in Table 14. The costs are shown in current dollars, and then adjusted to reflect the Net Present Value based on the year in which the expenditure is anticipated. For facility construction, the estimated current cost of construction is adjusted using the BCI (building construction cost index), and then reduced by the Discount Rate to determine the Net Present Value.¹

Table 14: Facility Costs to Meet Future Demand

Year	Project	Square Footage	Cost (2017 Dollars)*	% for New Growth	Total New Growth Cost (NPV)**
2026	New Branch Library	13,991	\$ 4,365,192	100%	\$ 4,716,121
Total		13,991	\$ 4,365,192	100%	\$ 4,716,121

* Project cost based on \$312 per square foot, *Green Building Square Foot Costbook*, 2017 Edition, published by BNI Building News.

** Net Present Value = 2017 cost estimate inflated to target year using the Building Cost Index (BCI), reduced to NPV using the Discount Rate.

New Collection Materials

The new collection materials needed to serve new growth and to offset the discard rate, identified on Table 13, are used to calculate the future cost to meet service demand, as shown in Table 16.

The average cost of a collection material is based on the overall value of all of the materials in the current collection. The inventory of the current collection is shown on Table 15 by type of material, number of materials, the average cost to acquire a volume in each category, and the total value of all materials in each category. Overall, the system’s collection of 42,908 materials has a current (replacement) value of almost \$940,200. Dividing one by the other, and assuming the relative ratios will persist into the future, the average material in the collection is almost \$22.



¹ For more information on the cost inflator factor and net present value, see the 'Cost Adjustments and Credits' chapter of this report.

Table 15: Value of Collection Materials - 2017

Collection Materials	Number of Volumes	Avg Value per Volume	Total Value
Adult fiction books	1,220	\$ 23.33	\$ 28,462.60
Adult nonfiction books	10,431	\$ 24.09	\$ 251,282.79
Juvenile books	9,376	\$ 16.49	\$ 154,610.24
Easy books	7,638	\$ 15.73	\$ 120,145.74
EZ books	916	\$ 13.03	\$ 11,935.48
Magazines	1,108	\$ 22.00	\$ 24,376.00
Realia items	98	\$ 41.05	\$ 4,022.90
Large print books	1,616	\$ 27.17	\$ 43,906.72
Young adult books	2,585	\$ 16.17	\$ 41,799.45
Videogames	148	\$ 24.83	\$ 3,674.84
Music CDs	334	\$ 13.95	\$ 4,659.30
DVDs	3,129	\$ 22.84	\$ 71,466.36
Audiobooks	2,481	\$ 36.62	\$ 90,854.22
Ref/Georgianna	1,828	\$ 48.67	\$ 88,968.76
Total	42,908		\$ 940,165.40
	Overall Average per Volume		\$ 21.91

This average cost-per-material from Table 15 is used in Table 16 to calculate the total cost each year to acquire the needed number of materials (from Table 13). The costs are shown in current dollars, and then adjusted to reflect the Net Present Value based on the year in which the expenditure is anticipated. For the acquisition of collection materials, the current cost is adjusted to reflect the CPI (consumer price index) inflation factor, and then reduced by the Net Discount Rate to determine the Net Present Value.



In Table 16, the number of books needed each year is taken from Table 13. The total cost each year (in current 2017 dollars) is produced by multiplying the number of collection materials times the average per-volume cost calculated in Table 15. The percentage of the cost attributable to new growth in each year is based on the percentage of total volumes demanded that are attributable to new growth's demand (i.e., excluding the volumes needed to replace the discarded volumes).

This 'New Growth Cost (2017 \$)' is converted to Net Present Value as described above, using the CPI inflation rate to the future year indicated, and then reducing that figure using the Net Discount Rate back to present value of the future cost.

Table 16: Collection Material Costs to Meet Future Demand

Year	Total Materials Needed (annual)	Total Cost (2017 Dollars)	% for New Growth	New Growth Cost (2017 \$)	Net Present Value
2018	1,777	\$ 38,934.07	99.49%	\$ 38,736.88	\$ 39,114.61
2019	1,777	\$ 38,934.07	99.49%	\$ 38,736.88	\$ 39,496.02
2020	1,792	\$ 39,262.72	99.50%	\$ 39,065.53	\$ 40,219.50
2021	1,796	\$ 39,350.36	99.50%	\$ 39,153.17	\$ 40,702.80
2022	1,781	\$ 39,021.71	99.49%	\$ 38,824.52	\$ 40,754.71
2023	1,762	\$ 38,605.42	99.49%	\$ 38,408.23	\$ 40,710.86
2024	1,769	\$ 38,758.79	99.49%	\$ 38,561.60	\$ 41,271.99
2025	1,765	\$ 38,671.15	99.49%	\$ 38,473.96	\$ 41,579.72
2026	1,777	\$ 38,934.07	99.49%	\$ 38,736.88	\$ 42,272.08
2027	1,784	\$ 39,087.44	99.50%	\$ 38,890.25	\$ 42,853.28
2028	1,788	\$ 39,175.08	99.50%	\$ 38,977.89	\$ 43,368.66
2029	1,784	\$ 39,087.44	99.50%	\$ 38,890.25	\$ 43,693.09
2030	1,769	\$ 38,758.79	99.49%	\$ 38,561.60	\$ 43,746.30
2031	1,773	\$ 38,846.43	99.49%	\$ 38,649.24	\$ 44,273.27
2032	1,765	\$ 38,671.15	99.49%	\$ 38,473.96	\$ 44,502.24
2033	1,758	\$ 38,517.78	99.49%	\$ 38,320.59	\$ 44,757.06
2034	1,754	\$ 38,430.14	99.49%	\$ 38,232.95	\$ 45,090.13
2035	1,746	\$ 38,254.86	99.48%	\$ 38,057.67	\$ 45,321.07
2036	1,765	\$ 38,671.15	99.49%	\$ 38,473.96	\$ 46,263.58
2037	1,792	\$ 39,262.72	99.50%	\$ 39,065.53	\$ 47,432.98
2038	1,831	\$ 40,117.21	99.45%	\$ 39,898.11	\$ 48,916.27
2039	1,862	\$ 40,796.42	99.46%	\$ 40,577.32	\$ 50,234.11
2040	1,881	\$ 41,212.71	99.47%	\$ 40,993.61	\$ 51,244.33
Total	41,048	\$ 899,361.68		\$ 894,760.58	\$ 1,007,818.63

■ Credit Calculation

There is a credit calculation for this public facility category for SPLOST sales tax contributions generated from new growth and development.

Table 17 below shows the anticipated sales tax contribution from new residential growth towards the cost to replace discarded materials.

The sales tax information is taken from the Cost Adjustments and Credits chapter. The funding requirement for collection materials is the portion of the capital projects that are not impact fee eligible.

The 'Annual Funding Required (NPV)' column shows the cost (inflated to each year of purchase) of the discarded materials which have to be replaced, from the previous table. The 'SPLOST Percentage' is the percentage of the total countywide residential population that represents accumulated new growth for each designated year, taken from the Cost Adjustments and Credits chapter.

The 'Contribution from New Growth' column shows the cost of the replacement materials multiplied by the SPLOST percentage each year. (Residential population is used because the impact fee for library services will only be levied against residential growth.)

Table 17: New Growth Contribution from SPLOST Taxes

Year	Annual Funding Required (NPV)	SPLOST Percentage	Contribution from New Growth
2018	\$ 197.19	2.60%	\$ 5.12
2019	\$ 197.19	5.08%	\$ 10.03
2020	\$ 197.19	7.47%	\$ 14.72
2021	\$ 197.19	9.74%	\$ 19.21
2022	\$ 197.19	11.92%	\$ 23.51
2023	\$ 197.19	14.00%	\$ 27.61
2024	\$ 197.19	15.99%	\$ 31.53
2025	\$ 197.19	17.89%	\$ 35.27
2026	\$ 197.19	19.70%	\$ 38.84
2027	\$ 197.19	21.42%	\$ 42.25
2028	\$ 197.19	23.07%	\$ 45.50
2029	\$ 197.19	24.64%	\$ 48.59
2030	\$ 197.19	26.14%	\$ 51.55
2031	\$ 197.19	27.57%	\$ 54.37
2032	\$ 197.19	28.93%	\$ 57.05
2033	\$ 197.19	30.23%	\$ 59.61
2034	\$ 197.19	31.47%	\$ 62.05
2035	\$ 197.19	32.64%	\$ 64.37
2036	\$ 197.19	33.76%	\$ 66.58
2037	\$ 197.19	34.83%	\$ 68.68
2038	\$ 219.10	35.84%	\$ 78.53
2039	\$ 219.10	36.80%	\$ 80.64
2040	\$ 219.10	37.72%	\$ 82.64
Total New Residential Contribution			\$ 1,068.24

■ Net Impact Cost Calculation

Table 18: Net Cost to Serve New Growth

Description	Total
Eligible Cost of Library Construction	\$ 4,716,121.25
+ Eligible Cost of New Materials	\$ 1,007,818.63
minus Credit for SPLOST Contributions	\$ (1,068.24)
minus Impact Fee Fund Balance	\$ (5,631.83)
= Net Eligible Library Project Costs	\$ 5,717,239.80
÷ Housing Unit Increase (2017-2040)	10,719
= Net Impact Cost per Housing Unit	\$ 533.37

Note that an administration fee and a fee for preparation of the CIE is added to the net cost figure to produce the gross fee, which is shown on the Maximum Impact Fee Schedule.

As noted, Library impact fees are collected from residential development only.

In calculating the net impact cost, the credit for future sales tax contributions (from Table 17) is subtracted from the total impact fee eligible cost, as discussed above. This figure is further reduced to the extent that previously collected Library impact fees are on hand, to produce a net impact-fee-eligible cost amount. This is shown on Table 18. Using the net eligible cost figure, the net impact cost per housing unit is calculated, based on the increase in dwelling units between 2017 and 2040.

■ Impact Fee Schedule

Table 18, therefore, presents the maximum net impact fee that could be charged in Dawson County for the library service category, based on the calculations carried out in this chapter.

The net impact fee per housing unit is transferred to Table 19: Maximum Impact Fee Schedule - Library Services below. The following are added to the net 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 Table 19 are transferred to Table 2: Summary Maximum Impact Fee Schedule on page 7 of this report.

Table 19: Maximum Impact Fee Schedule - Library Services

ITE Code	Land Use	Employees	Unit of Measure	Net Fee per Unit	Adminis- tration (3%)	CIE Preparation	Total Impact Fee
Net Fee per Housing Unit:				\$ 533.37			
<i>Residential (200-299)</i>							
210	Single-Family Detached Housing	n/a	per dwelling	\$ 533.37	\$ 16.00	\$ 1.09	\$ 550.46
220	Apartment	n/a	per dwelling	\$ 533.37	\$ 16.00	\$ 1.09	\$ 550.46
230	Residential Condominium/Townhouse	n/a	per dwelling	\$ 533.37	\$ 16.00	\$ 1.09	\$ 550.46

Notes: ITE Code means the land use code assigned in the *Trip Generation* manual, by the Institute of Transportation Engineers, 9th Edition.
n/a - not applicable. Fee applies only to residential land uses.

Parks and Recreation Facilities

■ Introduction

Public recreational opportunities are available in Dawson County through a number of parks facilities and programs operated by the County. Demand for recreational facilities is almost exclusively related to the county's resident population. Businesses make some incidental use of public parks for office events, company softball leagues, etc., but the use is minimal compared to that of the families and individuals who live in the county. Thus, the parks and recreation impact fee is limited to future residential growth. The County maintains and operates four parks.

Rock Creek Sports Complex



River Park



Veterans Memorial Park



War Hill Park



■ **Service Area**

Parks and recreational facilities are made available to the county's population without regard to the political jurisdiction within which the resident lives. In addition, the facilities are provided equally to all residents, and often used on the basis of the programs available, as opposed to proximity of the facility. For instance, children active in the little leagues play games at various locations throughout the county, based on scheduling rather than geography. Other programs are located only at certain centralized facilities, to which any Dawson County resident can come. As a general rule, parks facilities are located throughout the county, and future facilities will continue to be located around the county so that all residents will have recreational opportunities available on an equal basis. Thus, the entire county is considered a single service area for parks & recreation.

■ **Level of Service**

The Level of Service (LOS) that the County’s parks and recreation components provide is viewed from two perspectives: the LOS that is provided by the current facilities to the current population, and the LOS adopted as part of the County’s Recreation Master Plan.

Table 20: Current Inventory of Parks and Recreation Components

Facility	Park Acreage	Recreation Component	Current Inventory
Rock Creek Park	50.8	Total Park Acres	202.9
Veterans Memorial Park	40.8	Baseball/Softball Fields	15
River Park	3.3	Basketball Courts (outdoor)	2
War Hill Park	108.0	Multi-Purpose Fields	4
Total Acres	202.9	Picnic Pavilions	4
		Playgrounds	3
		Restroom/Concession	3
		Swimming Pools	1
		Tennis Courts	6
		Buildings:*	
		Gymnasium	17,000
		Maintenance Sheds	4,200
		Office/Concession	2,500
		Recreation Center	36,000
		Senior Rec Center	5,000
		Maintenance Yards**	0.25
		Walking Trails***	1.90
		Parking Spaces	1,255

Footnotes:

* Floor area in square feet. Includes 1 indoor regulation basketball court at the Veterans Memorial Park gym and 2 at the Rock Creek Recreation Center.

** Total acres for 2 yards.

*** Trail miles.

Current Level of Service

Table 21 below provides the current Level of Service in park acreage and facilities per population, converts this to the Level of Service per the number of housing units occupied by that population, and then expresses the Level of Service per housing unit (since impact fees are assessed per housing unit when building permits are issued, not population).

For all facilities, the current Level of Service standards are expressed in terms of the number of people each recreation component serves.

Parks and Recreation Facilities

To determine the current LOS, the number of people served by each component is calculated using the current inventory for the component divided into the current population. These LOS 'per population' standards are then re-calculated as the number of housing units served by each component based on the county's number of people living in an average household (the average household size). Since impact fees are assessed at the time a building permit is issued (and the impact fee will be applied only to residential uses), the LOS then must be converted to a 'per housing unit' basis.

Table 21 shows how the current Level of Service for each recreation component is converted to a 'per housing unit' basis. To do this, the current LOS shown in the middle columns of 1 per a 'certain number of' housing units for each component is converted to the LOS per housing unit by dividing the number into '1', which produces the number of components serving one housing unit'.

Table 21: Current Level of Service Calculations

Component Type	Current Level of Service*	Level of Service per "X" Housing Units**	Level of Service per Each Housing Unit***
Total Park Acres	1 per 121 population =	1 per 55 Housing Units =	0.018182 for each Housing Unit
Baseball/Softball Fields	1 per 1,634 population =	1 per 751 Housing Units =	0.001332 for each Housing Unit
Basketball Courts (outdoor)	1 per 12,259 population =	1 per 5,631 Housing Units =	0.000178 for each Housing Unit
Multi-Purpose Fields	1 per 6,129 population =	1 per 2,816 Housing Units =	0.000355 for each Housing Unit
Picnic Pavilions	1 per 6,129 population =	1 per 2,816 Housing Units =	0.000355 for each Housing Unit
Playgrounds	1 per 8,172 population =	1 per 3,754 Housing Units =	0.000266 for each Housing Unit
Swimming Pools	1 per 24,517 population =	1 per 11,262 Housing Units =	0.000089 for each Housing Unit
Tennis Courts	1 per 4,086 population =	1 per 1,877 Housing Units =	0.000533 for each Housing Unit
Buildings:			
Gymnasium	1 sq ft per 1,442 population =	1 sq ft per 0.662 Housing Units =	1.509501 for each Housing Unit
Maintenance Sheds	1 sq ft per 5,837 population =	1 sq ft per 2.681 Housing Units =	0.372936 for each Housing Unit
Office/Concession	1 sq ft per 9,807 population =	1 sq ft per 4.505 Housing Units =	0.221985 for each Housing Unit
Recreation Center	1 sq ft per 0.681 population =	1 sq ft per 0.313 Housing Units =	3.196590 for each Housing Unit
Restroom/Concession	1 per 8,172 population =	1 per 3,754 Housing Units =	0.000266 for each Housing Unit
Senior Rec Center	1 sq ft per 4,903 population =	1 sq ft per 2.252 Housing Units =	0.443971 for each Housing Unit
Maintenance Yard acres	1 acre per 98,068 population =	1 acre per 45,048 Housing Units =	0.000022 for each Housing Unit
Walking Trail miles	1 mile per 12,904 population =	1 mile per 5,927 Housing Units =	0.000169 for each Housing Unit
Parking Spaces	1 space per 19,535 population =	1 space per 8,974 Housing Units =	0.111437 for each Housing Unit

* LOS is based on the current inventory divided by the current population.

** Converted using average population per housing unit in 2017.

*** "1" divided by the number of housing units for each component under 'Level of Service per "X" Housing Units' column.

By way of example, the current LOS for basketball courts is 1 court per 12,259 people. That number—12,259—is divided by the 2017 average household size to convert 'people' into 'housing units'. The result is the converted standard of 1 court per 5,631 housing units. By dividing the component (1) by the number of housing units it serves results in the portion of a basketball court that serves 1 housing unit (0.000178).

Master Plan Level of Service

In 2012 the County adopted a Master Plan for all recreation facilities operated by the County. Those LOS standards are shown in Table 22. By-and-large, the current LOS standards compare generally well to the adopted LOS standards, with some exceptions (such as baseball and softball fields, which far outnumber the adopted standard). In many cases, types of recreation components are not the same between the current inventory and the Master Plan facilities. In particular, adopted standards for various building types cannot be compared to the current LOS standards.

Table 22: Adopted Level of Service Calculations

Component Type	Adopted Level of Service*	Level of Service per "X" Housing Units	Level of Service per Each Housing Unit
Total Park Acres	1 per 100 population =	1 per 46 Housing Units =	0.021739 for each Housing Unit
Baseball/Softball Fields	1 per 5,000 population =	1 per 2,297 Housing Units =	0.000435 for each Housing Unit
Basketball Courts (outdoor)	1 per 8,000 population =	1 per 3,675 Housing Units =	0.000272 for each Housing Unit
Football Fields	1 per 20,000 population =	1 per 9,187 Housing Units =	0.000109 for each Housing Unit
Picnic Pavilions	1 per 5,000 population =	1 per 2,297 Housing Units =	0.000435 for each Housing Unit
Playgrounds	1 per 5,000 population =	1 per 2,297 Housing Units =	0.000435 for each Housing Unit
Soccer Fields	1 per 5,000 population =	1 per 2,297 Housing Units =	0.000435 for each Housing Unit
Spraygrounds	1 per 20,000 population =	1 per 9,187 Housing Units =	0.000109 for each Housing Unit
Swimming Pools	1 per 20,000 population =	1 per 9,187 Housing Units =	0.000109 for each Housing Unit
Tennis Courts	1 per 3,500 population =	1 per 1,608 Housing Units =	0.000622 for each Housing Unit
Volleyball Courts	1 per 8,000 population =	1 per 3,675 Housing Units =	0.000272 for each Housing Unit
Buildings:			
Community/Cultural Ctrs	1 per 20,000 population =	1 per 9,187 Housing Units =	0.000109 for each Housing Unit
Maintenance Facilities	1 per park =	1 per 2,816 Housing Units =	0.000355 for each Housing Unit
Restroom/Concession	1 per 4 fields =	1 per 2371 Housing Units =	0.000422 for each Housing Unit
Recreation Center	1 per 10,000 population =	1 per 4,594 Housing Units =	0.000218 for each Housing Unit
Senior Rec Center	1 per 20,000 population =	1 per 9,187 Housing Units =	0.000109 for each Housing Unit
Walking/jogging Trails	1 per park =	1 per 2,816 Housing Units =	0.000355 for each Housing Unit
Multi-Purpose Trail System	1 per 20,000 population =	1 per 9,187 Housing Units =	0.000109 for each Housing Unit
Parking	75 per field =	1 per 8 Housing Units =	0.126532 for each Housing Unit

* Dawson County System-Wide Recreation Master Plan: 2012-2017. Adopted February 2012.

Impact Fee LOS Standards

As will be seen below, the impact fee calculations use a combination of LOS standards reflecting current conditions and Master Plan standards where applicable, relevant and useful to the calculations.

First priority is given to the LOS standards adopted in the Master Plan, where those standards relate to actual facilities in the inventory and are based on population. Where an existing category (such as multi-purpose fields) has no comparable component in the Master Plan, the LOS for the current facilities is used. In the case of buildings, the categories between the Plan and actual facilities do not match, and/or the LOS standard differs as to its basis (floor area per population versus number per park). The same is true for maintenance sheds and maintenance yards versus 'maintenance facilities', and parking spaces. Lastly, the LOS for a 'multi-purpose trail system' is not quantified in terms of actual length; establishing an appropriate LOS in the future awaits a trail plan that will quantify this quantifiably.

The standards used in this Methodology Report provide greater clarity to future parks and recreation component development in terms of the County's current activities and planned improvements.

■ Forecasts for Service Area

Future Demand

As discussed above, the Level of Service standards used in this Report are an amalgam of standards established in the County’s *Systemwide Recreation Master Plan* (by preference) and current LOS standards in those cases where the Master Plan does not quantify future improvements in a useful way. The relevant LOS standards are shown on Table 23.

The table below applies the relevant Level of Service calculations to determine the facilities needed to meet the demand created by the existing residents of the county as well as the future demand for park lands and recreation components that will be generated by new growth and development.

Table 23: Existing and Future Demand (Parks)

Component Type	LOS per Housing Unit*	Existing Demand (2017)*	New Growth Demand (2017-40)**
Total Park Acres	0.021739	244.83	233.02
Baseball/Softball Fields	0.000435	4.90	4.67
Basketball Courts (outdoor)	0.000272	3.06	2.92
<i>Multi-Purpose Fields</i>	0.000355	4.00	3.81
Picnic Pavilions	0.000435	4.90	4.67
Playgrounds	0.000435	4.90	4.67
Swimming Pools	0.000109	1.23	1.17
Tennis Courts	0.000622	7.00	6.67
Buildings:			
<i>Gymnasium (sf)</i>	1.509501	17,000	16,180
<i>Maintenance Sheds (sf)</i>	0.372936	4,200	3,997
<i>Office/Concession (sf)</i>	0.221985	2,500	2,379
<i>Recreation Center (sf)</i>	3.196590	36,000	34,264
<i>Restroom/Concession (#)</i>	0.000266	3.00	2.86
<i>Senior Rec Center (sf)</i>	0.443971	5,000	4,759
<i>Maintenance Yard (acres)</i>	0.000022	0.25	0.24
<i>Walking Trails (miles)</i>	0.000169	1.90	1.81
<i>Parking (spaces)</i>	0.111437	1,255	1,194

* 2017 Housing Units = 11,262

** New Units (2017-2040) = 10,719

Notes:

All LOS figures from *Systemwide Recreation Master Plan* except those in italics, which are current LOS figures.

Multi-Purpose fields serve as football and soccer fields. Basketball courts double as volleyball courts.

Multi-Purpose Trail System not quantified, pending preparation of a trail system plan.

The current number of housing units (11,202) is multiplied by the LOS standard to determine the existing demand of today’s population. Since existing demand is used in the calculation of a few of

the LOS standards, some of the existing demand figures on Table 23 are the same as the 'current inventory' figures on Table 20; these facilities are those shown on Table 23 in italics.

The increase in housing units between 2017 and 2040 (10,719 - see Table 3) is multiplied by the same LOS to produce the future demand created by future growth.

Impact Fee Eligibility

New recreation components are eligible for impact fee funding only to the extent that the improvements are needed to specifically serve new growth and development, and only at the Level of Service applicable countywide. Table 24 shows the number of new recreation components that are needed to satisfy needs of the county's future residents, and the extent to which fulfillment of those needs will serve future growth demand.

The table begins with the current inventory of recreation components, and the 'existing demand' for those components to meet the needs of the current (2017) population based on the applicable Level of Service standards (shown on Table 23).

Table 24: Future Park Facility Impact Fee Eligibility

Component Type	Current Inventory	Existing Demand	Excess or (Shortfall)	New Growth Demand	Net Total Needed	Total Needed*	% Impact Fee Eligible
Total Park Acres	202.94	244.83	(41.89)	233.02	274.91	274.91	84.76%
Baseball/Softball Fields	15	4.90	10.10	4.67	(5.43)	-	
Basketball Courts (outdoor)	2	3.06	(1.06)	2.92	3.98	4.00	99.53%
Multi-Purpose Fields	4	4.00	0.00	3.81	3.81	4.00	95.16%
Picnic Pavilions	4	4.90	(0.90)	4.67	5.57	6.00	77.78%
Playgrounds	3	4.90	(1.90)	4.67	6.57	7.00	66.66%
Swimming Pools	1	1.23	(0.23)	1.17	1.39	2.00	58.34%
Tennis Courts	6	7.00	(1.00)	6.67	7.67	8.00	83.33%
Buildings:							
Gymnasium (sf)	17,000	17,000	0	16,180	16,180	16,180	100.00%
Maintenance Sheds (sf)	4,200	4,200	0	3,997	3,997	3,997	100.00%
Office/Concession (sf)	2,500	2,500	0	2,379	2,379	2,379	100.00%
Recreation Center (sf)	36,000	36,000	0	34,264	34,264	34,264	100.00%
Restroom/Concession (#)	3	3	0	2.86	2.86	3.00	95.18%
Senior Rec Center (sf)	5,000	5,000	0	4,759	4,759	4,759	100.00%
Maintenance Yard (acres)	0.25	0	0	0.24	0.24	0.24	100.00%
Walking Trails (miles)	1.9	1.9	0	1.81	1.81	1.81	100.00%
Parking (spaces)	1,255	1,255	0	1,194	1,194	1,194	100.00%

* For recreation components that can only be built in whole numbers: 'Net Total Needed' rounded up to next whole number. For park acres, building floor areas, maintenance yard acres, walking trails, and parking spaces, actual number shown.

The 'Excess or (Shortfall)' column compares the existing demand to the current inventory for each recreation component. If an 'excess' were to exist, that would mean that more components (or portions of components) exist than are needed to meet the demands of the current population, and those 'excesses' would create capacity to meet the recreational needs of future growth. This is the case for one component in Dawson County—baseball/softball fields.

Conversely, a 'shortfall' indicates that there are not enough components (or portions of components) to meet the recreational needs of the current population based on the Level of Service standard (e.g., park acres, basketball courts and playgrounds, etc.).

The column on Table 24, labeled 'New Growth Demand', shows the total demand for recreation components specifically to meet future growth needs (from Table 23), and the 'Net Total Needed' column shows all existing and future needs combined. The current 'shortfall' in park acres, playgrounds and several other components, is added to new growth's facility needs to bring the current population up to the current Level of Service required to be available to all—both current and future residents.

For many components, the 'Total Needed' column is rounded up to whole numbers. This is simply because the County cannot build a portion of a facility; it must build an entire facility. As a result, the '% Impact Fee Eligible' column may reflect a percentage less than 100%.

For example, existing residents suffer a 'shortfall' in playgrounds based on the LOS standard. New growth mathematically demands 4.67 new playgrounds; together, 6.57 playgrounds are needed to bring the current residents and future residents up to the same Level of Service. The County cannot build a portion of a playground; it must build an entire playground for it to be usable. Thus 7 playgrounds need to be added, and the portion of the 7 new playgrounds that is impact fee eligible (4.67) results in the percentage that is impact fee eligible (66.66%); 27.18% of the total goes to satisfy existing demand, and the remainder (6.15%) is excess capacity available to serve new growth beyond the current planning horizon. As such, the excess capacity could be recouped through impact fees at that time, but cannot be charged to new growth between now and 2040.

The outlier is baseball/softball fields. The 15 existing fields in the inventory provides an 'excess capacity' of about ten fields using the LOS standard adopted in the Master Plan. This 'excess capacity' exceeds the 'raw' demand created by new growth (4.67 fields). As a result, no additional fields will be needed in the foreseeable future.

Future Costs

Table 25 is a listing of the future capital project costs to provide the additional recreation components needed to attain or address the applicable Level of Service standards.

Costs are based on cost estimates provided in the *Systemwide Recreation Master Plan* for all recreation components except buildings. For new building construction, the actual amount spent by the County on each such facility in the past was raised to 2012 dollars using the Building Construction Index (BCI) from the actual year of each expenditure. All of these 2012 figures in the 'Net Cost per Unit' column are then increased to the gross cost to account for a contingency (10%) and professional services (7%)—a figure also taken from the Master Plan.

The cost estimates provided in the Master Plan were developed for the 2012 report; these are increased to current (2017) figures using the CPI inflation rate. In similar fashion, the building construction costs calculated in 2012 equivalent dollars are increased to 2017 values using the BCI inflation rate.

The 2017 figures in the 'Total Needed' column are drawn from the 'Total Needed' column in Table 24. These totals, multiplied by the 2017 per unit costs, establish the total cost in current dollars for each recreation component. These 'Total Cost (2017)' figures on the Table are converted to 'New Growth Share' dollars based on the percentage that each improvement is impact fee eligible (also from Table 24).

Amounts in the 'New Growth Share' column are reduced to the extent that certain projects are deferred from impact fee funding, as follows: The number of acres of park land and the number of parking spaces are deferred from impact fee parking to the extent of 50% of the impact fee eligible amount; while the total cost of the Aquatic Center is deferred in favor of alternate funding sources.

The calculation of Net Present Value is explained following the table.

Table 25: Future Costs to Meet Future Demand for Parks and Recreation

Component Type	2012 Cost Estimates		Current (2017) Cost Estimates			Percent Impact Fee Eligible	New Growth Share	2030 Net Present Value***
	Net Cost per Unit*	Gross Cost per Unit**	Per Unit Cost (2017)	Total Needed	Total Cost (2017)			
Park Acres****	\$ 18,000	\$ 21,060	\$ 22,665	274.91	\$ 6,230,786	84.76%	\$ 2,640,719	\$ 2,995,770
Baseball/Softball Fields	\$ 250,000	\$ 292,500	\$ 345,044	-	\$ -		\$ -	\$ -
Basketball Courts (outdoor)	\$ 50,000	\$ 58,500	\$ 69,009	4	\$ 276,036	99.53%	\$ 274,740	\$ 395,649
Multi-Purpose Fields	\$ 150,000	\$ 175,500	\$ 207,026	4	\$ 828,104	95.16%	\$ 788,037	\$ 1,134,839
Picnic Pavilions	\$ 50,000	\$ 58,500	\$ 69,009	6	\$ 414,054	77.78%	\$ 322,032	\$ 463,753
Playgrounds	\$ 75,000	\$ 87,750	\$ 103,513	7	\$ 724,591	66.66%	\$ 483,046	\$ 695,626
Aquatic Center (deferred)	\$ 11,000,000	\$ 12,870,000	\$ 13,774,166	1	\$ 13,774,166	58.34%	\$ -	\$ -
Tennis Courts	\$ 75,000	\$ 87,750	\$ 103,513	8	\$ 828,104	83.33%	\$ 690,022	\$ 993,690
Buildings:								
Gymnasium (sf)	\$ 113	\$ 132	\$ 141	16,180	\$ 2,281,380	100.00%	\$ 2,281,380	\$ 2,550,964
Maintenance Sheds (sf)	\$ 75	\$ 87	\$ 93	3,997	\$ 371,721	100.00%	\$ 371,721	\$ 415,646
Office/Concession (sf)	\$ 147	\$ 172	\$ 184	2,379	\$ 437,736	100.00%	\$ 437,736	\$ 489,462
Recreation Center (sf)	\$ 113	\$ 132	\$ 141	34,264	\$ 4,831,224	100.00%	\$ 4,831,224	\$ 5,402,116
Restroom/Concession (#)	\$ 200,000	\$ 234,000	\$ 250,439	3	\$ 751,317	95.18%	\$ 715,092	\$ 799,593
Senior Rec Center	\$ 186	\$ 218	\$ 233	4,759	\$ 1,108,847	100.00%	\$ 358,847	\$ 401,251
Maintenance Yard (acres)	\$ 18,000	\$ 21,060	\$ 22,665	0.24	\$ 5,393	100.00%	\$ 5,393	\$ 6,118
Walking Trails (miles)	\$ 158,400	\$ 185,328	\$ 218,620	1.81	\$ 395,375	100.00%	\$ 395,375	\$ 569,373
Parking (spaces)****	\$ 1,600	\$ 1,872	\$ 2,208	1,194	\$ 2,636,352	100.00%	\$ 1,318,176	\$ 1,898,284
Total					\$ 35,895,186		\$ 15,913,540	\$ 19,212,136

* Cost figures drawn from *Systemwide Recreation Master Plan* (2012 estimates) for all component types except buildings. Per square foot costs for buildings derived from actual costs from the Fixed Assets listing, raised to 2012 equivalent costs.

** Includes contingency at 10% and planning/architectural/engineering/legal services at 7%.

*** Actual construction dates will vary. NPV based on CPI, CCI or BCI as appropriate, in an average construction year of 2030. New Growth Share for the Senior Rec Center reflects a reduction for a \$750,000 grant.

**** Cost per park or maintenance yard acre includes land acquisition and site preparation. Impact fee funding for park land acquisition and new parking spaces partially deferred at 50%.

Note: All cost figures shown rounded to nearest whole dollar.

The Net Present Value of new growth’s share of the cost for each component is calculated as follows:

Since the annual ‘pace’ of component construction over the 2017-2040 period is not known, 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.

To calculate the 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 (2017) estimated costs using Engineering News Record’s (ENR) 10-year average building cost inflation (BCI) rate for buildings (such as gymnasiums) and the 10-year average CPI rate for all other projects. All project costs are then reduced to current NPV dollars using the Net Discount Rate.

■ Credit Calculation

There is a credit calculation for this public facility category for future SPLOST sales tax contributions from new residents. As indicated previously, financing through future SPLOST programs is assumed for the non-eligible impact fee project costs.

Table 26 shows the anticipated sales tax contribution from new residential growth towards the non-eligible costs for the new recreation components. The sales tax information is taken from the Cost

Adjustments and Credits chapter. The funding requirement for the recreation components is the portion of those capital projects that are not impact fee eligible.

Table 26: New Growth Contribution from SPLOST Taxes

Year	Annual Funding Required (NPV)	SPLOST Percentage	Contribution from New Growth
2018		2.60%	\$ -
2019		5.08%	\$ -
2020		7.47%	\$ -
2021		9.74%	\$ -
2022		11.92%	\$ -
2023		14.00%	\$ -
2024		15.99%	\$ -
2025		17.89%	\$ -
2026		19.70%	\$ -
2027		21.42%	\$ -
2028		23.07%	\$ -
2029		24.64%	\$ -
2030	\$ 3,764,808.04	26.14%	\$ 984,239.08
2031		27.57%	\$ -
2032		28.93%	\$ -
2033		30.23%	\$ -
2034		31.47%	\$ -
2035		32.64%	\$ -
2036		33.76%	\$ -
2037		34.83%	\$ -
2038		35.84%	\$ -
2039		36.80%	\$ -
2040		37.72%	\$ -
Total New Residential Contribution			\$ 984,239.08

The 'Annual Funding Required (NPV)' column shows the cost (inflated to 2030) of the non-eligible capital improvements, determined from Table 25. The 'SPLOST percentage' is the percentage of the total countywide residential population that represents accumulated new growth for each designated year, taken from the Cost Adjustments and Credits chapter.

The amount of the non-eligible portion of the new recreation components multiplied by the SPLOST percentage for that year produces the figures in the 'Contribution from New Growth' column. (Residential population is used because the Parks & Recreation impact fee will only be levied against residential growth.)

■ **Net Impact Cost Calculation**

In calculating the net impact cost, the credit for future sales tax contributions (from Table 26) is subtracted from the total impact fee eligible cost, as discussed above.

Table 27: Net Cost to Serve New Growth

Description	Total
Eligible Cost of Parks & Rec Projects	\$ 19,212,135.65
minus Credit for SPLOST Contributions	\$ (984,239.08)
minus Impact Fee Fund Balance	\$ (68,292.70)
= Net Eligible Parks & Rec Project Costs	\$ 18,159,603.87
÷ Housing Unit Increase (2017-2040)	10,719
= Net Impact Cost per Housing Unit	\$ 1,694.15

This figure is further reduced to the extent that previously collected Parks & Recreation impact fees are on hand, to produce a net impact fee eligible cost amount. This is shown on Table 27.

Using the net eligible cost figure, the net impact cost per housing unit is calculated, based on the increase in housing units between 2017 and 2040.

Note that an administration fee and a fee for preparation of the CIE is added to the net cost figure to produce the gross fee, which is shown on the Maximum Impact Fee Schedule.

■ Impact Fee Schedule—Parks & Recreation

The maximum net impact fee that could be charged in Dawson County for the Parks & Recreation facility category, based on the calculations carried out in this chapter, is shown on Table 27.

The 'net impact cost per housing unit' is transferred to Table 28: Maximum Impact Fee Schedule - Parks & Recreation.

The following are added to the net 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 Table 2: Summary Maximum Impact Fee Schedule on page 7 of this report.

Table 28: Maximum Impact Fee Schedule - Parks & Recreation

ITE Code	Land Use	Employees	Unit of Measure	Net Fee per Unit	Adminis- tration (3%)	CIE Preparation	Total Impact Fee
Net Fee per Housing Unit:				\$ 1,694.15			
<i>Residential (200-299)</i>							
210	Single-Family Detached Housing	n/a	per dwelling	\$ 1,694.15	\$ 50.82	\$ 3.46	\$ 1,748.43
220	Apartment	n/a	per dwelling	\$ 1,694.15	\$ 50.82	\$ 3.46	\$ 1,748.43
230	Residential Condominium/Townhouse	n/a	per dwelling	\$ 1,694.15	\$ 50.82	\$ 3.46	\$ 1,748.43

Notes: ITE Code means the land use code assigned in the *Trip Generation* manual, by the Institute of Transportation Engineers, 9th Edition.
n/a - not applicable. Fee applies only to residential land uses.

Fire Protection

■ Introduction

Fire protection services are provided to the entire county through the Dawson County Emergency Services Department. The capital value of the department's services is based upon fire stations, administrative office space, and apparatus having a life of 10 years or more.

The Emergency Services department provides service throughout Dawson County, including the City of Dawsonville, which overall totals 211 square miles of coverage area and 50 miles of shoreline on Lake Sydney Lanier. Services are provided through three operating divisions: Fire/Rescue, the Emergency Management Agency, and Emergency Medical Services. Much of the data in this chapter is drawn from the *Fire Services Assessment* prepared by the Georgia Mountains Regional Commission published in November, 2016. As a convention, the term 'fire protection services' is used in this

chapter to apply to all fire and EMS services provided by the Emergency Services Department.



■ Service Area

Fire protection operates as a coordinated system, with each station backing up the other stations in the system. The backing up of another station is not a rare event; it is the essence of good fire protection planning. All stations do not serve the same types of land uses, nor do they all have the same apparatus. It is the strategic placement of personnel and equipment that is the backbone of good fire protection. Any new station would relieve some of the demand on the other stations. Since the stations would continue to operate as 'backups' to the other stations, everyone in the county would benefit by the construction of the new station since it would reduce the 'backup' times the station nearest to them would be less available. For these reasons the entire county is considered a single service area for the provision of fire protection and EMS services because all residents and employees within the county have equal access to the benefits of the program.

■ Level of Service

Current Inventory

Fire protection and emergency medical services are provided currently by 8 stations with a combined square footage of 26,016, comprising 25 bays and utilizing a total of 29 heavy vehicles. In addition, the department maintains a facility, which includes a burn building,

Fire Protection

for training. Table 29 presents the 2017 inventory of facilities and impact fee eligible apparatus in the county.

Table 29: Current Capital Improvements

Stations			Vehicles*							
Facility	Floor Area (Sq Ft)	Bays	Engine	Tender	Tanker	Brush	Battalion	Medic	Squad	Total
Station 1 - Memory Lane	7,632	3	1	1		1	1	1		5
Station 2 - Liberty Drive	3,900	4	1	1				1	1	4
Station 3 - Harmony Church Rd	2,784	3	1	1				1		3
Station 4 - Emma Terrace	2,100	3	1	1						2
Station 5 - Kelly Bridge Road	1,800	3	1	1	1					3
Station 6 - Hubbard Road	3,800	4	1	1		1		1	1	5
Station 7 - Dawson Forest Road	2,000	3	2	1				1	1	5
Station 8 - Monument Road	2,000	2	1	1						2
Total Existing System**	26,016	25	9	8	1	2	1	5	3	29

* Vehicles having a service life of 10 years or more.

** In addition to the stations, the department operates a fire training facility, which includes a burn building.

The current capital improvements from Table 29 are translated into the current Level of Service (LOS) for fire protection and emergency medical services in Dawson County on Table 30.

Table 30: Level of Service Calculations - 2017

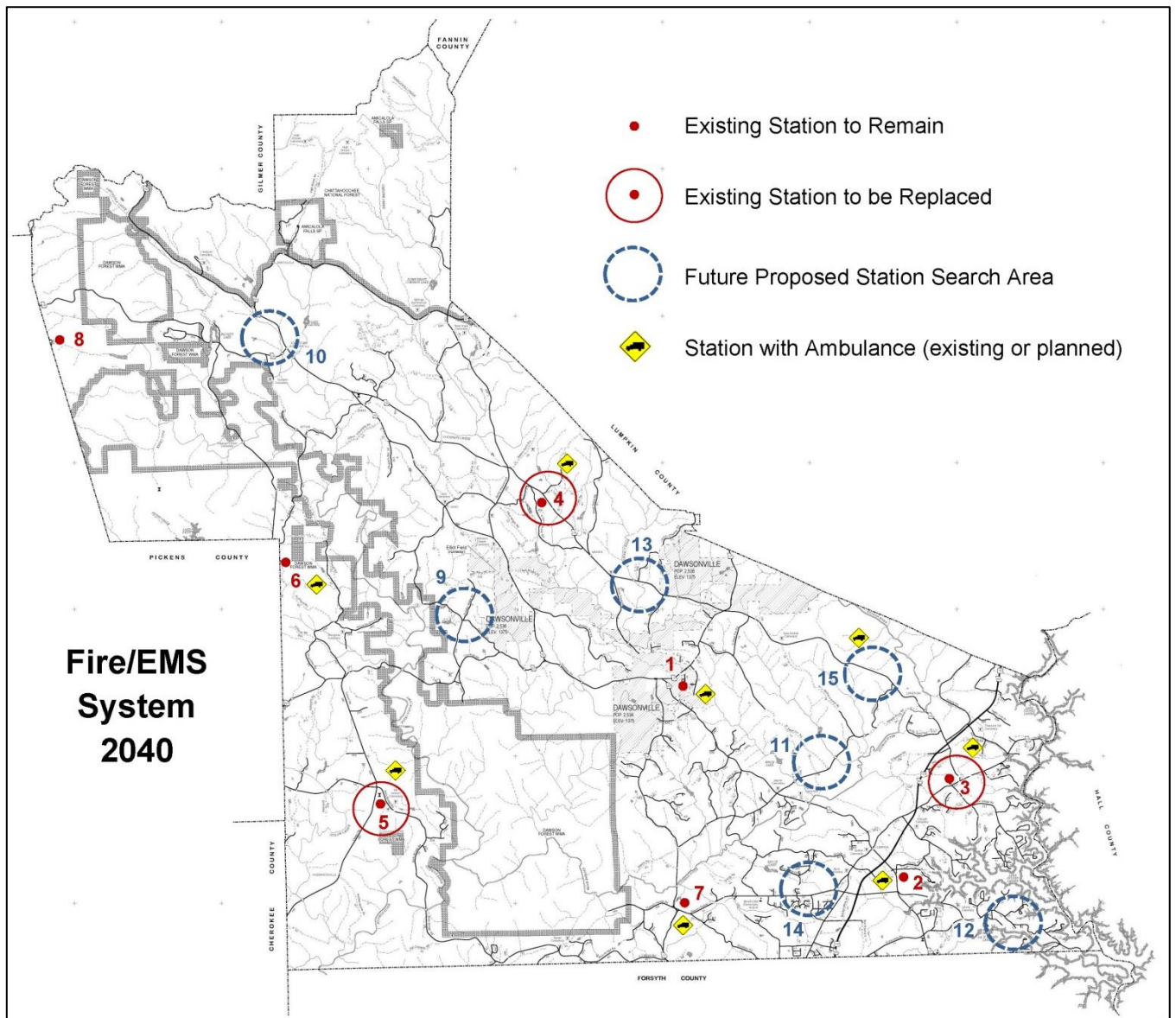
Facility	Current Service Population	Level of Service
Total Existing Floor Area	2017 Day-Night Population	Square Feet per 2017 Day-Night Population
26,016	34,807	0.747436
Total Existing Station Bays	2017 Day-Night Population	Bays per 2017 Day-Night Population
25	34,807	0.000718
Total Existing Vehicles	2017 Day-Night Population	Vehicles per 2017 Day-Night Population
29	34,807	0.000833

The current LOS is measured in terms of the number of vehicles (engines, tankers, medic units, etc.), and the number of square feet and vehicle bays in the fire stations, per day-night population in the service area. Day-night population is used as a measure in that fire protection services are available on a 24-hour basis, provided continuously to both residences and businesses throughout the county.

Future System

In order to adequately serve future growth and development in the county to 2040, a number of stations will need to be built and new vehicles purchased. Overall, future plans call for the replacement (and enlargement) of three aging and obsolete stations and the construction of ultimately seven new stations (four by 2040) strategically located throughout the county. Importantly, the current Fire/EMS system of facilities has capacity available to accommodate a portion of future growth, which reduces the overall need for new facilities.

The map below conceptualizes the future planned Fire/EMS system as currently envisioned. It is important to bear in mind that future growth patterns could produce changes in the location of some stations or the order in which construction would need to occur. Three stations (11, 13 and 14) will not be built before 2040, but land will be acquired for them before 2040.



Fire Protection

A key factor in determining future station locations is consideration of achieving ISO standards with regard to response times and road miles to be travelled within each fire service district. As the county grows, population concentrations will increase in high-growth areas, new commercial buildings and multi-family complexes will be built, and inevitably traffic congestion will mount on major roads. As a result, 'densification' of fire service districts in the growing areas of the county—primarily the GA 400/Lake Area and the area extending from there to Dawsonville and beyond (as shown on the County's Comprehensive Plan map)—will be needed to maintain and possibly increase service and decrease response times. This would have the added benefit of potentially reducing fire insurance premiums as a result.

Future System Improvements

The future system to be achieved by 2040, as currently envisioned, is summarized on the table below. The table excludes the construction of Stations 11, 13 and 14, and the acquisition of vehicles for those stations, which will be deferred until after 2040.

Table 31: Future Fire/EMS System - 2040

Stations			New Bays Added**	Vehicles Added*				Year of Addition
Facility	Existing Bays	Existing Vehicles		Engine	Tender	Medic	Ladder	
Station 1 - Memory Lane	3	5					1	2020
Station 2 - Liberty Drive	4	4					1	2023
Replace Station 3 - Harmony Church Rd	3	3	1	1				2023
Replace Station 4 - Emma Terrace	3	2	1	1		1		2022
Replace Station 5 - Kelly Bridge Road	3	3	1			1		2020
Station 6 - Hubbard Road	4	5						
Station 7 - Dawson Forest Road	3	5						
Station 8 - Monument Road	2	2						
New Stations:								
Station 9 - Sweetwater Juno Road			3	2	1			2019
Station 10 - SR 183 Area			2	1	1			2021
Station 11 - Etowah River Road Area			0	0	0			2025
Station 12 - War Hill Park Rd Area			1	1				2028
Station 13 - SR 136 at Shoal Creek Area			0	0	0			2031
Station 14 - Dawson Forest at Red Rider Area			0	0	0			2034
Station 15 - SR 136 at Cothran Road Area			4	2	1	1		2037
Total Future System (2040)***	25	29	13	8	3	3	2	

* Excludes vehicles relocated from Stations 3, 4 and 5 when the stations are replaced. Impact fee funding for equipment for Stations 11, 13 and 14 deferred. For all stations, types of vehicles may vary from the "standard complement" depending on the individual needs of each service area.

** Excludes replacement of 3 bays each at existing Stations 3, 4 and 5 when replacement stations built. Impact fee funding for construction of Stations 11, 13 and 14 deferred, except for land acquisition.

*** In addition to the stations, expansion of the training facility and burn building is proposed in 2024.

Note: New station search areas are approximate; specific station locations will reflect growth patterns and land availability, which may also affect the order of construction.

In summary, the future system is planned to include 15 existing and new stations (a net increase of 4 by 2040 and 7 eventually) and an expansion of the fire training center.

In addition, a net increase of 25 vehicles (16 by 2040 and 9 thereafter for a total of 54), including 2 new ladder trucks and an increase of 3 new ambulances are planned. As part of the program, three 3-bay existing but obsolete stations are proposed to be replaced with modern, 4-bay facilities.

Using the figures from Table 31 for both the existing facilities and planned improvements, Table 32 shows the resulting LOS calculations for the system as of 2040.

As can be seen on the table, the LOS standards for the future system are lower than for the current system, which is a result of taking advantage of the residual capacity in the existing system to provide service to at least a portion of anticipated growth. Applying the current LOS factors from Table 30 to all future growth, for instance, would have projected a future need for as many as 12 or 14 new stations, instead of 7, and as many as 56 more vehicles, not 25.

Table 32: Future Level of Service Calculations - 2040

Facility	Future Service Population	Level of Service
Total Future Floor Area	2040 Day-Night Population	Square Feet per 2040 Day-Night Population
34,090	67,560	0.504589
Total Future Station Bays	2040 Day-Night Population	Bays per 2040 Day-Night Population
38	67,560	0.000562
Total Future Vehicles	2040 Day-Night Population	Vehicles per 2017 Day-Night Population
45	67,560	0.000666

■ Future Costs

There are three categories of future costs: those for facilities (new station construction and the training center), those for new vehicle purchases, and those for the Fire Hydrant Extension program.

Table 33: Timing of Future Fire/EMS Facility Projects

Year	Day-Night Pop Increase over 2017	Incremental Demand		
		Station Number	New Bays Added *	New Vehicles
2017	34,807			
2018	1,224			
2019	2,462	9	3	3
2020	3,723	5**	1	2
2021	5,003	10	2	2
2022	6,308	4	1	2
2023	7,633	3***	1	2
2024	8,982			
2025	10,355	11****	0	0
2026	11,748			
2027	13,162			
2028	14,593	12	1	1
2029	16,043			
2030	17,505			
2031	18,983	13****	0	0
2032	20,479			
2033	21,983			
2034	23,497	14****	0	0
2035	25,020			
2036	26,556			
2037	28,096	15	4	4
2038	29,641			
2039	31,198			
2040	32,753			
Totals	32,753		13	16

* Excludes replacement of 3 bays each at existing Stations 3, 4 and 5 when replacement stations built.

** Includes one ladder truck for Station 1.

*** Includes one ladder truck for Station 2.

**** Impact fee funding for station construction (except land acquisition) and equipment deferred.

As a prologue to the **facility and system improvements**, Table 33 shows the anticipated timing of the projects and expenditures. Timing for near-term system improvements has been determined using two factors: first, immediate needs identified from the County’s Capital Improvements Program (CIP) and to meet growing service demands in areas experiencing much of the recent increases in development; and second, to extend service to the far northern portion of the county not currently well-served.

Once the immediate needs of the system are addressed, additional project are related to future increases in the day-night population—correlating increases in service to the growing demands of future growth and development—as well as increasing service into pockets of areas less served than others.

As to the **Fire Hydrant Extension Program**, the schedule of hydrant installations is closely coordinated with the extension of and upgrades to major water lines in high-growth areas by the Etowah Water and Sewer Authority.

The three categories—facility costs, vehicle costs, and the fire hydrant extension program—are discussed separately below.

Facility Costs

The estimated costs of the facility projects scheduled on Table 33 for the stations are shown on Table 34. Costs shown in the 'Current (2017) Dollars' columns are based on the current gross per-bay cost of a standard three-bay fire station (\$460,000 in total impact fee eligible capital cost per bay), drawn from the *Fire Services Assessment* report prepared by the Georgia Mountains Regional Commission (GMRC) in 2016. Since the 'per bay' costs are determined by dividing the total cost of construction of a standard station by the number of resulting bays, the gross cost per bay therefore includes a portion of the cost of administrative and other space in a standard station.

For Stations 11, 13 and 14, only land acquisition costs are considered for impact fee funding in the current program. These costs (\$125,000 per station in current dollars) are also drawn from the *Fire Services Assessment* report prepared by the GMRC in 2016. Four stations listed on the table (4, 5, 9 and 10) are needed to meet LOS standards but will be funded with SPLOST revenue instead of impact fees.

The 2017 total dollar amounts for impact fee funded projects are then converted to Net Present Value using ENR's 10-year average Building Construction Index (BCI) for the appropriate years. (NPV calculations are discussed fully in the Adjustments and Credits chapter).

The 'percent impact fee eligible' figure on Table 34 for Station 3 reflects the 3-bays that are not impact fee eligible because they will be replaced by the new 4-bay stations. Stations 11, 13 and 14 are 100% impact fee eligible and, thus, so are the land acquisition costs.

Table 34: Impact Fee Costs - Facilities

Facility	Current (2017) Dollars			Future Cost		Impact Fee Eligible	
	Replaced Bays	New Bays Added*	Total Cost	Year	Net Present Value**	Percent Eligible	Eligible Cost
Station 9		\$ 1,380,000	\$ 1,380,000	2019	n/a ***	n/a ***	\$ -
New Station 5	\$ 1,380,000	\$ 460,000	\$ 1,840,000	2020	n/a ***	n/a ***	\$ -
Station 10		\$ 920,000	\$ 920,000	2021	n/a ***	n/a ***	\$ -
New Station 4	\$ 1,380,000	\$ 460,000	\$ 1,840,000	2022	n/a ***	n/a ***	\$ -
New Station 3	\$ 1,380,000	\$ 460,000	\$ 1,840,000	2023	\$ 1,937,339	25%	\$ 484,335
Station 11****		\$ -	\$ 125,000	2025	\$ 133,894	100%	\$ 133,894
Station 12		\$ 460,000	\$ 460,000	2028	\$ 505,594	100%	\$ 505,594
Station 13****		\$ -	\$ 125,000	2031	\$ 140,977	100%	\$ 140,977
Station 14****		\$ -	\$ 125,000	2034	\$ 144,658	100%	\$ 144,658
Station 15		\$ 1,840,000	\$ 1,840,000	2037	\$ 2,184,961	100%	\$ 2,184,961
Training Center		\$ 207,919	\$ 207,919	2024	\$ 220,807	100%	\$ 220,807
	\$ 4,140,000	\$ 6,187,919	\$ 10,702,919		\$ 5,268,229		\$ 3,815,226

* Based on an average cost per bay for a three-bay station of \$460,000.

** Net Present Value = 2017 cost estimate per fire station bay inflated to target year using the ENR Building Cost Index (BCI), reduced to NPV using Discount Rate.

*** Funded with SPLOST revenue.

**** Impact fee funding for station construction and equipment deferred; land acquisition estimated at \$125,000 in current (2017) dollars.

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Vehicle Costs

Vehicle costs are calculated in much the same way as the facility costs. The 2017 costs for a new engine, tender and medic vehicle (ambulance) are drawn from the *Fire Services Assessment* report. The current cost for a ladder truck is drawn from recent purchase history of other jurisdictions.

The vehicles to be purchased for Station 9, and one ladder truck, are scheduled to be purchased with SPLOST revenue. All other vehicles are 100% impact fee eligible in that they add new capacity to serve future growth and development.

The Net Present Value calculation, in this case, is based on the 10-year average CPI (as discussed in the Adjustments and Credits chapter).

Table 35: Impact Fee Costs - Vehicles

Facility	Engine	Tender	Medic	Ladder	Total Cost (2017)	Year	Net Present Value*
Station 9	n/a **	n/a **	\$ -	\$ -	\$ -	2019	\$ -
New Station 5	\$ -	\$ -	\$ 250,000	\$ -	\$ 250,000	2020	\$ 257,385
Station 1	\$ -	\$ -	\$ -	n/a **	\$ -	2020	\$ -
Station 10	\$ 400,000	\$ 300,000	\$ -	\$ -	\$ 700,000	2021	\$ 727,705
New Station 4	\$ 400,000	\$ -	\$ 250,000	\$ -	\$ 650,000	2022	\$ 682,315
New Station 3	\$ 400,000	\$ -	\$ -	\$ -	\$ 400,000	2023	\$ 423,981
Station 2	\$ -	\$ -	\$ -	\$ 1,100,000	\$ 1,100,000	2023	\$ 1,165,947
Station 11***	\$ -	\$ -	\$ -	\$ -	\$ -	2025	\$ -
Station 12	\$ 400,000	\$ -	\$ -	\$ -	\$ 400,000	2028	\$ 445,059
Station 13***	\$ -	\$ -	\$ -	\$ -	\$ -	2031	\$ -
Station 14***	\$ -	\$ -	\$ -	\$ -	\$ -	2034	\$ -
Station 15	\$ 800,000	\$ 300,000	\$ 250,000	\$ -	\$ 1,350,000	2037	\$ 1,639,157
					\$ 4,850,000		\$ 5,341,548

* Net Present Value = 2017 cost estimate for vehicles inflated to target year using the Consumer Price Index (CPI), reduced to NPV using Discount Rate.

** Equipment funded with SPLOST revenue.

*** Impact fee funding for vehicle costs for Stations 11, 13 and 14 deferred.

Fire Hydrant Extensions

The Etowah Water and Sewer Authority is in the process of executing a program of extending new major water mains and replacing some undersized distribution water mains in various parts of the county. All of these mains will provide increased pressures and flows that will now support fire hydrants. The County has undertaken a cooperative program of funding fire hydrants to be placed as these new mains are installed, thus bringing a considerable increase in firefighting capability to these currently unserved areas. Since these extensions will increase capacity for all properties in the water service areas, thus promoting new growth and development, the expenditures are 100% impact fee eligible.

The 15-year program is detailed on Table 36 as to the number of hydrants to be installed on an annual basis in coordination with the Authority’s scheduled extension and upgrade efforts.

Table 36: Fire Hydrant Extension Program

Year	Number of Hydrants	Cost (2017 \$)	Cost (NPV)
2017	3	\$ 11,895	\$ 11,895
2018	14	\$ 55,510	\$ 57,089
2019	11	\$ 43,615	\$ 46,132
2020	12	\$ 47,580	\$ 51,758
2021	11	\$ 43,615	\$ 48,794
2022	12	\$ 47,580	\$ 54,745
2023	18	\$ 71,370	\$ 84,454
2024	37	\$ 146,705	\$ 178,538
2025	22	\$ 87,230	\$ 109,178
2026	8	\$ 31,720	\$ 40,831
2027	10	\$ 39,650	\$ 52,490
2028		\$ -	\$ -
2029	18	\$ 71,370	\$ 99,936
2030		\$ -	\$ -
2031	12	\$ 47,580	\$ 70,469
2032	21	\$ 83,265	\$ 126,829
Total	209	\$ 828,685	\$ 1,033,137

The 2017 cost shown on the table is the average cost to add an elbow connection and a standard hydrant to a main as it is installed. The Net Present Value is the current cost inflated to each future year using the ENR’s Construction Cost Index (CCI), reduced by the discount rate to 2017 equivalent dollars.

Average Hydrant Cost = \$ 3,965.00

■ Credit Calculation

There is a credit calculation for this public facility category for future SPLOST sales tax contributions from new residents and employees. As indicated previously, financing through future SPLOST programs is assumed for the non-eligible impact fee project costs for the purpose of credit calculations. For projects that are 100% impact fee eligible but will be funded through a SPLOST program, there is no credit because new growth and development will be paying their 'fair share' of the facilities through their SPLOST taxes instead of impact fee revenue. In the case of fire protection facilities, new growth will receive a credit for SPLOST taxes it generates that will be applied to the non-eligible costs of the Station 3 replacement.

Table 37 shows the anticipated sales tax contribution from new residential and employment growth towards the non-eligible costs for the new Fire/EMS facility components. The 'Annual Funding Required (NPV)' column shows the cost (inflated to the appropriate year of expenditure) of the portion of Stations 3 that is not impact fee eligible (in this case, the gross cost of three of the four new bays to be constructed).

Table 37: New Growth Contribution from SPLOST Taxes

Year	Annual Funding Required (NPV)	SPLOST Percentage	Contribution from New Growth
2018		3.40%	\$ -
2019		6.61%	\$ -
2020		9.66%	\$ -
2021		12.57%	\$ -
2022		15.34%	\$ -
2023	\$ 1,453,003.74	17.99%	\$ 261,328.41
2024		20.51%	\$ -
2025		22.93%	\$ -
2026		25.23%	\$ -
2027		27.44%	\$ -
2028		29.54%	\$ -
2029		31.55%	\$ -
2030		33.46%	\$ -
2031		35.29%	\$ -
2032		37.04%	\$ -
2033		38.71%	\$ -
2034		40.30%	\$ -
2035		41.82%	\$ -
2036		43.28%	\$ -
2037		44.67%	\$ -
2038		45.99%	\$ -
2039		47.27%	\$ -
2040		48.48%	\$ -
Total New Growth Contribution			\$ 261,328.41

There are no credits for expenditures for the additional vehicles or the new fire hydrants because these system improvements are 100% impact fee eligible.

The sales tax information in the 'SPLOST Percentage' column is taken from the Cost Adjustments and Credits chapter. It is the projected percentage of the SPLOST collections each year that is expected to be generated specifically from new growth and development.

The amount of the non-eligible portion of the new Fire/EMS facility components multiplied by the SPLOST percentage for that year produces the figure in the 'Contribution from New Growth' column.

■ Net Impact Cost Calculation

The net impact cost per day-night population is calculated in Table 38.

The total cost figures are reduced by the credit for SPLOST contributions (from Table 37) and to the extent that previously collected Fire Protection impact fees are on hand (from Table 8), to produce a 'net eligible project cost' amount. This figure, divided by the future increase in day-night population, results in a 'net impact cost per person', which will be used to calculate impact fees for all nonresidential land uses.

Table 38: Net Cost to Serve New Growth

Description	Total
Eligible Cost of Fire/EMS Facilities	\$ 3,815,226.00
Eligible Cost of Fire/EMS Vehicles	\$ 5,341,547.86
Eligible Cost of Fire Hydrant Program	\$ 1,033,136.91
minus Credit for SPLOST Contributions	\$ (261,328.41)
minus Impact Fee Fund Balance	\$ (3,237.41)
= Total Net Eligible Emergency Mgt Project Costs	\$ 9,925,344.96
÷ Day/Night Population Increase (2017-2040)	32,753
= Net Impact Cost per Person	\$ 303.04

Note that an administration fee and a fee for preparation of the CIE is added to the net cost figure to produce the gross fee, which is shown on the Maximum Impact Fee Schedule.

A final calculation is necessary in order to fairly distribute the portion of project costs that are attributable to residential growth. Impact fees for residential land uses are assessed not on the basis of family sizes but when building permits are issued. The per-person cost therefore does not apply.

Under the methodology followed here, this is only required in public facility categories that serve both residential and non-residential populations. (Dwelling units alone are already the Level of Service unit of measure for the Library Services and Parks & Recreation categories.)

Table 39: Calculation of Net Housing Unit Fee

Factor	Data
Residential Population Increase (2017-2040)	25,483
÷ Day/Night Population Increase (2017-2040)	32,753
= Residential Increase as % of Total Increase	77.804%
Total Net Eligible Emergency Mgt Project Costs	\$ 9,925,344.96
× % Cost Attributable to New Residential Growth =	\$ 7,722,271.72
÷ New Housing Units in Service Area (2017-2040)	10,719
= Net Impact Cost per Housing Unit	\$ 720.43

The portion of project costs that is attributable to new residential growth is calculated based on the percentage of the total day-night population increase that is comprised of new residents. This percentage is then applied to the 'total net eligible project costs' figure to produce a 'cost attributable to new

Fire Protection

residential growth' figure. Finally, the 'cost attributable to new residential growth' is divided by the number of new housing units projected to 2040 to produce a 'net impact cost per housing unit'.

■ Impact Fee Schedule—Fire Protection

The maximum net impact fees that could be charged in Dawson County for the Fire Protection category, based on the calculations carried out in this chapter, are shown on Table 38 and Table 39.

The net impact fees per person and per housing unit are transferred to Table 40.

The following are added to the net 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 Table 2: Summary Maximum Impact Fee Schedule on page 7 of this report.



Table 40: Maximum Impact Fee Schedule - Fire Protection

ITE Code	Land Use	Employees	Unit of Measure	Net Fee per Unit	Adminis- tration (3%)	CIE Preparation	Total Impact Fee
Net Fee per Day/Night Person (Employee):				\$ 303.0362			
Residential (200-299)							
210	Single-Family Detached Housing	n/a	per dwelling	\$ 720.43	\$ 21.61	\$ 1.47	\$ 743.51
220	Apartment	n/a	per dwelling	\$ 720.43	\$ 21.61	\$ 1.47	\$ 743.51
230	Residential Condominium/Townhouse	n/a	per dwelling	\$ 720.43	\$ 21.61	\$ 1.47	\$ 743.51
Port and Terminal (000-099)							
030	Intermodal Truck Terminal	0.001415	per square foot	\$ 0.4288	\$ 0.0129	\$ 0.0009	\$ 0.4426
Industrial/Agricultural (100-199)							
110	General Light Industrial	0.002308	per square foot	\$ 0.6994	\$ 0.0210	\$ 0.0014	\$ 0.7218
120	General Heavy Industrial	0.001829	per square foot	\$ 0.5543	\$ 0.0166	\$ 0.0011	\$ 0.5720
140	Manufacturing	0.001793	per square foot	\$ 0.5435	\$ 0.0163	\$ 0.0011	\$ 0.5609
150	Warehousing	0.000915	per square foot	\$ 0.2773	\$ 0.0083	\$ 0.0006	\$ 0.2862
151	Mini-Warehouse	0.000077	per square foot	\$ 0.0233	\$ 0.0007	\$ -	\$ 0.0240
152	High-Cube Warehouse	0.000076	per square foot	\$ 0.0230	\$ 0.0007	\$ -	\$ 0.0237
Lodging (300-399)							
310	Hotel or Conference Motel	0.569735	per room	\$ 172.6503	\$ 5.1795	\$ 0.3525	\$ 178.1823
311	All Suites Hotel	0.500000	per room	\$ 151.5181	\$ 4.5455	\$ 0.3093	\$ 156.3729
320	Motel	0.439500	per room	\$ 133.1845	\$ 3.9955	\$ 0.2719	\$ 137.4519
Recreational (400-499)							
430	Golf Course	0.245614	per acre	\$ 74.4299	\$ 2.2329	\$ 0.1520	\$ 76.8148
437	Bowling Alley	0.001000	per square foot	\$ 0.3030	\$ 0.0091	\$ 0.0006	\$ 0.3127
443	Movie Theater	0.001470	per square foot	\$ 0.4453	\$ 0.0134	\$ 0.0009	\$ 0.4596
460	Arena	3.333000	per acre	\$ 1,010.0197	\$ 30.3006	\$ 2.0620	\$ 1,042.3823
480	Amusement Park	9.094838	per acre	\$ 2,756.0652	\$ 82.6820	\$ 5.6267	\$ 2,844.3739
490	Tennis Courts	0.243888	per acre	\$ 73.9068	\$ 2.2172	\$ 0.1509	\$ 76.2749
491	Racquet/Tennis Club	0.000307	per square foot	\$ 0.0930	\$ 0.0028	\$ 0.0002	\$ 0.0960
492	Health/Fitness Center	0.000705	per square foot	\$ 0.2136	\$ 0.0064	\$ 0.0004	\$ 0.2204
495	Recreational Community Center	0.001241	per square foot	\$ 0.3761	\$ 0.0113	\$ 0.0008	\$ 0.3882

Fire Protection

Maximum Impact Fee Schedule - Fire Protection continued

ITE Code	Land Use	Employees	Unit of Measure	Net Fee per Unit	Adminis- tration (3%)	CIE Preparation	Total Impact Fee
<i>Institutional (500-599)</i>							
520	Private Elementary School	0.000982	per square foot	\$ 0.2976	\$ 0.0089	\$ 0.0006	\$ 0.3071
530	Private High School	0.000653	per square foot	\$ 0.1979	\$ 0.0059	\$ 0.0004	\$ 0.2042
560	Church/Place of Worship	0.000347	per square foot	\$ 0.1052	\$ 0.0032	\$ 0.0002	\$ 0.1086
565	Day Care Center	0.002818	per square foot	\$ 0.8538	\$ 0.0256	\$ 0.0017	\$ 0.8811
566	Cemetery	0.081425	per acre	\$ 24.6748	\$ 0.7402	\$ 0.0504	\$ 25.4654
<i>Medical (600-699)</i>							
610	Hospital	0.002938	per square foot	\$ 0.8903	\$ 0.0267	\$ 0.0018	\$ 0.9188
620	Nursing Home	0.002331	per square foot	\$ 0.7065	\$ 0.0212	\$ 0.0014	\$ 0.7291
630	Clinic	0.003926	per square foot	\$ 1.1898	\$ 0.0357	\$ 0.0024	\$ 1.2279
<i>Office (700-799)</i>							
710	General Office Building	0.003322	per square foot	\$ 1.0068	\$ 0.0302	\$ 0.0021	\$ 1.0391
714	Corporate Headquarters Building	0.003425	per square foot	\$ 1.0379	\$ 0.0311	\$ 0.0021	\$ 1.0711
715	Single-Tenant Office Building	0.003149	per square foot	\$ 0.9542	\$ 0.0286	\$ 0.0019	\$ 0.9847
720	Medical-Dental Office Building	0.004055	per square foot	\$ 1.2288	\$ 0.0369	\$ 0.0025	\$ 1.2682
760	Research and Development Center	0.002928	per square foot	\$ 0.8872	\$ 0.0266	\$ 0.0018	\$ 0.9156
770	Business Park	0.003079	per square foot	\$ 0.9331	\$ 0.0280	\$ 0.0019	\$ 0.9630
<i>Retail (800-899)</i>							
812	Building Materials and Lumber Store	0.001406	per square foot	\$ 0.4261	\$ 0.0128	\$ 0.0009	\$ 0.4398
813	Free-Standing Discount Superstore	0.000960	per square foot	\$ 0.2909	\$ 0.0087	\$ 0.0006	\$ 0.3002
814	Variety Store	0.000960	per square foot	\$ 0.2909	\$ 0.0087	\$ 0.0006	\$ 0.3002
815	Free-Standing Discount Store	0.001985	per square foot	\$ 0.6014	\$ 0.0180	\$ 0.0012	\$ 0.6206
816	Hardware/Paint Store	0.000964	per square foot	\$ 0.2921	\$ 0.0088	\$ 0.0006	\$ 0.3015
817	Nursery (Garden Center)	0.003120	per square foot	\$ 0.9453	\$ 0.0284	\$ 0.0019	\$ 0.9756
818	Nursery (Wholesale)	0.001667	per square foot	\$ 0.5051	\$ 0.0152	\$ 0.0010	\$ 0.5213
820	Shopping Center	0.001670	per square foot	\$ 0.5061	\$ 0.0152	\$ 0.0010	\$ 0.5223
823	Factory Outlet Center	0.001670	per square foot	\$ 0.5061	\$ 0.0152	\$ 0.0010	\$ 0.5223
826	Specialty Retail Center	0.001982	per square foot	\$ 0.6007	\$ 0.0180	\$ 0.0012	\$ 0.6199
841	Automobile Sales	0.001528	per square foot	\$ 0.4630	\$ 0.0139	\$ 0.0009	\$ 0.4778

Maximum Impact Fee Schedule - Fire Protection continued

ITE Code	Land Use	Employees	Unit of Measure	Net Fee per Unit	Adminis-tration (3%)	CIE Preparation	Total Impact Fee
Retail Continued							
843	Auto Parts Store	0.000960	per square foot	\$ 0.2909	\$ 0.0087	\$ 0.0006	\$ 0.3002
848	Tire Store	0.001280	per square foot	\$ 0.3879	\$ 0.0116	\$ 0.0008	\$ 0.4003
849	Tire Superstore	0.001280	per square foot	\$ 0.3879	\$ 0.0116	\$ 0.0008	\$ 0.4003
850	Supermarket	0.001164	per square foot	\$ 0.3528	\$ 0.0106	\$ 0.0007	\$ 0.3641
851	Convenience Market (Open 24 Hours)	0.001800	per square foot	\$ 0.5455	\$ 0.0164	\$ 0.0011	\$ 0.5630
853	Convenience Market w/Gasoline Pumps	0.001800	per square foot	\$ 0.5455	\$ 0.0164	\$ 0.0011	\$ 0.5630
854	Discount Supermarket	0.002251	per square foot	\$ 0.6822	\$ 0.0205	\$ 0.0014	\$ 0.7041
860	Wholesale Market	0.000820	per square foot	\$ 0.2484	\$ 0.0075	\$ 0.0005	\$ 0.2564
857	Discount Club	0.001298	per square foot	\$ 0.3933	\$ 0.0118	\$ 0.0008	\$ 0.4059
862	Home Improvement Superstore	0.000960	per square foot	\$ 0.2909	\$ 0.0087	\$ 0.0006	\$ 0.3002
863	Electronics Superstore	0.000960	per square foot	\$ 0.2909	\$ 0.0087	\$ 0.0006	\$ 0.3002
876	Apparel Store	0.001670	per square foot	\$ 0.5061	\$ 0.0152	\$ 0.0010	\$ 0.5223
875	Department Store	0.001980	per square foot	\$ 0.6000	\$ 0.0180	\$ 0.0012	\$ 0.6192
880	Pharmacy/Drugstore	0.001670	per square foot	\$ 0.5061	\$ 0.0152	\$ 0.0010	\$ 0.5223
890	Furniture Store	0.000415	per square foot	\$ 0.1258	\$ 0.0038	\$ 0.0003	\$ 0.1299
Services (900-999)							
912	Drive-in Bank	0.004788	per square foot	\$ 1.4510	\$ 0.0435	\$ 0.0030	\$ 1.4975
931	Quality Restaurant	0.007460	per square foot	\$ 2.2607	\$ 0.0678	\$ 0.0046	\$ 2.3331
932	High-Turnover (Sit-Down) Restauant	0.007460	per square foot	\$ 2.2607	\$ 0.0678	\$ 0.0046	\$ 2.3331
934	Fast-Food Restaurant	0.010900	per square foot	\$ 3.3031	\$ 0.0991	\$ 0.0067	\$ 3.4089
941	Quick Lubrication Vehicle Shop	2.100000	per service bay	\$ 636.3760	\$ 19.0913	\$ 1.2992	\$ 656.7665
944	Gasoline/Service Station	0.160000	per pump	\$ 48.4858	\$ 1.4546	\$ 0.0990	\$ 50.0394
945	Gasoline Station w/Convenience Market	0.000216	per pump	\$ 0.0655	\$ 0.0020	\$ 0.0001	\$ 0.0676
947	Self-Service Car Wash	0.200000	per stall	\$ 60.6072	\$ 1.8182	\$ 0.1237	\$ 62.5491

Notes: ITE Code means the land use code assigned in the *Trip Generation* manual, by the Institute of Transportation Engineers, 9th Edition.
n/a - not applicable. Fee taken from the *Calculation of Housing Unit Fee* table.

Law Enforcement

■ Introduction

The Dawson County Sheriff's Office provides law enforcement services throughout Dawson County, which includes operation of the County detention facilities. The detention facilities and all law enforcement activities are administered from the Law Enforcement Center in Dawsonville; a precinct station is located in a different location than the Law Enforcement Center, but contains no detention facilities.

The Sheriff's Office provides 24-hour countywide land and marine patrol; serves arrest warrants and civil papers issued by the court; detains suspects and those sentenced to the county detention center; transports inmates locally and throughout the state; provides security to the courts and the governmental center, and during county government meetings; investigates crimes; and operates the 911 emergency communications center.

■ Service Area

The entire county is considered a single service area for the provision of the law enforcement services because all residents and employees in the county have equal access to the benefits of the program.



■ Level of Service

For impact fee purposes, this chapter focuses on the Law Enforcement Center and the operations contained within it. The current year (2017) Level of Service is based on the inventory of the number of inmate beds in the facility and the overall floor area of the Law Enforcement Center. Statistics for the facility are shown in Table 41.

Impact fees are based on increases in capacity to serve new growth and development in the county. Thus, utilization of the detention facility to specifically serve county residents and businesses is related directly to persons that have committed a crime in Dawson County punishable under County laws, and that are held in the jail at least overnight. Other detention activities, such as prisoners awaiting transfer to a State or federal facility, or housed under contract, while a legitimate law enforcement activity, are not occasioned by service directly provided to serve county residents and businesses.

Current utilization limited to Dawson County growth demands only is estimated at 50% of the beds on an average daily basis. This percentage is applied to the Center’s existing 192 beds and shown on Table 41.

Table 41: Inventory of Sheriff's Facilities

Facility	Square Feet	Beds*
County Sheriff's Headquarters and Jail	68,480	96

* Of the Detention Center's 192 beds, utilization by persons arrested, convicted or serving time for crimes committed in Dawson County is estimated at 50% on an average daily basis.

As noted, the Level of Service for law enforcement services in Dawson County is measured in terms of beds per day-night population. Day-night population is used as a measure in that the Sheriff’s Office provides its services on a 24-hour basis.

Table 42: Level of Service Calculation

Applicable Number of Beds	Current Day/Night Population	Beds per Day-Night Population
96	34,807	0.0028

The current LOS, shown in Table 42 is 0.0028 beds per day-night population, based on the Dawson County utilization of all beds available as discussed above.

■ **Forecasts for Service Area**

Future Demand

Table 43 presents the calculations carried out in order to determine the future service demand for detention facility beds in Dawson County. In this Table the current Level of Service from Table 42 is applied to future growth. The 'Day-Night Population Increase' figure is taken from the Day-Night Population table in the Future Growth appendix attached to this Report. The additional number of forecasted day-night population to the year 2040 is multiplied by the Level of Service to produce the future demand figure.

As discussed above, Dawson County utilization specifically for its residents and businesses leaves 96 beds available for non-county driven purposes. In effect, these beds represent a resource for increases in future county-driven utilization as the number of county residents and employees grows, along with the inevitable increase in crimes perpetrated within the county. While new growth will

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generate a total need for 90 beds to serve the needs of growth and development in Dawson County, the 'residual' 96 beds currently available for non-county use today are available to meet county-driven needs in the future.

As can be seen on Table 43, only 90 beds are needed to meet future demand created by new growth and development. Since this is fewer than the beds available, no additional beds are specifically needed for Dawson County inmates, and no expansion of the jail for county-specific needs is proposed.



Table 43: Future Demand Calculation

Beds per Day-Night Population	Day-Night Pop Increase (2017-40)	New Beds Needed
0.0028	32,753	90
Less: Residual capacity in existing facility		(96)
Net new beds needed		-6

As noted above, an expansion of the Law Enforcement Center (or a stand-alone facility) would be justified and probable to cover all functions of the Sheriff’s Office, including beds available for non-county specific incarcerations. However, whatever final form and size a new project might take, none of the cost of a new, larger facility could be funded with impact fees.

Road Improvements

improve capacity will positively affect capacity and reduce congestion throughout the county.

■ Level of Service Standards

Two types of Level of Service standards are used for road improvements: one for the design of roadways at a designated operational level, and one for the actual accommodation of traffic to be generated by new growth and development. The latter standard allows the cost of improvements to the road system to be equitably allocated between improvements that accrue to existing traffic today and improvements that will accommodate traffic generated by future growth and development.

Operational Design Standards

Level of Service (LOS) for roadways and intersections is measured on a 'letter grade' system that rates a road within a range of service from A to F. Level of Service A is the best rating, representing roads operating with unencumbered travel; Level of Service F is the worst rating, representing operational conditions of heavy congestion and long delays. This system is a means of relating the connection between speed and travel time, freedom to maneuver, traffic interruption, comfort, convenience and safety to the capacity that exists in a roadway. This refers to both a quantitative measure expressed as a service flow rate and an assigned qualitative measure describing parameters. *The Highway Capacity Manual, Special Report 209*, Transportation Research Board (1985), defines operational design Level of Service A through F as having the following characteristics:

1. LOS A: free flow, excellent level of freedom and comfort;
2. LOS B: stable flow, decline in freedom to maneuver, desired speed is relatively unaffected;
3. LOS C: stable flow, but marks the beginning of users becoming affected by others, selection of speed and maneuvering becomes difficult, comfort declines at this level;
4. LOS D: high density, but stable flow, speed and freedom to maneuver are severely restricted, poor level of comfort, small increases in traffic flow will cause operational problems;
5. LOS E: at or near capacity level, speeds reduced to low but uniform level, maneuvering is extremely difficult, comfort level poor, frustration high, level unstable; and
6. LOS F: forced/breakdown of flow. The amount of traffic approaching a point exceeds the amount that can transverse the point. Queues form, stop & go. Arrival flow exceeds discharge flow.

The traffic volume that produces different Level of Service grades differs according to road type, size, signalization, topography, condition and access.

The County has set its Level of Service for road improvements at LOS 'D', a level to which it will strive ultimately. However, interim road improvement projects that do not result in a LOS of 'D' will still provide traffic relief to current and future traffic alike and are thus eligible for impact fee funding.

Accommodating Future Traffic

Regardless of the design of roads in the system, the system must address the future traffic demands that will be created by new growth and development.

All road improvement projects benefit existing and future traffic proportionally to the extent that relief from over-capacity conditions eases traffic problems for everyone. For example, since new growth by 2040 will represent a certain portion of all 2040 traffic, new growth would be responsible for that portions' cost of all road improvements in the system that create new capacity. This approach

Road Improvements

recognizes that some improvements to the road system do not create new capacity—such as resurfacing, road maintenance, bridge replacements with the same number of lanes, etc.

It is noted that the cost-impact of non-Dawson County generated traffic on the roads traversing the county (cross commutes) is off-set by state and federal assistance. The net cost of the road projects that accrues to Dawson County reasonably represents (i.e., is 'roughly proportional' to) the impact on the roads by Dawson County residents and businesses.

The basis for the road impact fee would therefore be Dawson County's cost for the improvements that create new capacity divided by all traffic in 2040 (existing today plus new growth)—i.e., the cost per trip—times the traffic generated by new growth alone. For an individual land use, the cost per trip (above) would be applied to the number of trips that will be generated by the new development when a building permit is issued, assuring that new growth would only pay its 'fair share' of the road improvements that serve it. All other (non-capacity) improvements would be the cost responsibility of the current base of residents and businesses, including the creation of new capacity that exceeds the needs of future 2040 traffic.

■ Forecasts for Service Area

Of the several road projects that are on-going, the County has identified those that provide an increase in road capacity that will serve new growth; these are shown on Table 44. This is not a list of all County road projects. These projects were selected for inclusion in the County's impact fee program because the specific improvements proposed will increase traffic capacity and reduce congestion to some extent, whether through road widening, improved intersection operations or upgraded signalization.

In addition, the County is currently preparing a Transportation Plan that will address all of the road system improvements needed to fully serve new growth and development to 2040. The challenge to the County is to address the identified future demand that will be placed on the road system in the future and to both serve it with new capacity created in its currently on-going projects and to fully plan additional improvements to the system to accommodate all future traffic.

Table 44: Road Projects and Estimated Costs

Project Description	Total County Cost*	Year of Completion	Net Present Value**
Kelly Bridge Road, full depth reclamation and widening both lanes	\$ 2,200,000.00	2018	\$ 2,262,592.57
Lumpkin Campground Road, lane addition and lane widening	\$ 4,000,000.00	2019	\$ 4,230,847.21
Red Rider Road, right-of-way acquisition and road widening	\$ 1,200,000.00	2019	\$ 1,269,254.16
Sweetwater Juno Road, road widening and resurfacing	\$ 1,300,000.00	2019	\$ 1,375,025.34
Couch Road, road widening and resurfacing	\$ 3,500,000.00	2020	\$ 3,807,317.28
Grant Road East, upgrade dirt to pavement and road widening	\$ 800,000.00	2020	\$ 870,243.95
Shoal Creek - Shoal Creek Road Bridge, replacement with additional lanes and weight	\$ 2,500,000.00	2020	\$ 2,719,512.35
Amicalola River - Goshen Church Bridge, replacement with additional lanes and weight	\$ 1,500,000.00	2021	\$ 1,678,131.39
Whitmire Drive West, add third (center turn) lane	\$ 800,000.00	2021	\$ 895,003.41
Prepare Transportation Plan (in house)	\$ -	2020	\$ -
Total	\$ 17,800,000.00		\$ 19,107,927.67

* Total cost of project less grants or other non-County assistance.

** Net Present Value = current cost inflated to target year using the ENR Construction Cost Index, (CCI) reduced to NPV using the Discount Rate.

The cost figures shown in the 'Total County Cost' column of Table 44 are the current project cost figures. These figures are then calculated in Net Present Value (as discussed in the Cost Adjustments and Credits chapter) and shown in the last column, based on the year of project expenditure.

■ Eligible Costs

As discussed thoroughly in the *Trip Generation* section of the Appendix, new residential and nonresidential growth and development will represent 44.68% of the traffic on Dawson County's road network in 2040. To that extent, new growth's fair share of the road project costs that are attributed to new growth are shown on the following table. This percentage represents new growth's portion of system improvements that create the capacity needed to serve it, while the remaining 55.32% represents that portion of those projects that do not create new capacity, such as resurfacing, road maintenance, lane replacements during bridge widenings, and so forth.

Table 45: Eligible Cost Calculations

Project*	Net Present Value	% Impact Fee Eligible*	New Growth Cost (NPV)
Kelly Bridge Road, full depth reclamation and widening both lanes	\$ 2,262,592.57	44.67786%	\$ 1,010,877.84
Lumpkin Campground Road, lane addition and lane widening	\$ 4,230,847.21	44.67786%	\$ 1,890,251.81
Red Rider Road, right-of-way acquisition and road widening	\$ 1,269,254.16	44.67786%	\$ 567,075.54
Sweetwater Juno Road, road widening and resurfacing	\$ 1,375,025.34	44.67786%	\$ 614,331.84
Couch Road, road widening and resurfacing	\$ 3,807,317.28	44.67786%	\$ 1,701,027.72
Grant Road East, upgrade dirt to pavement and road widening	\$ 870,243.95	44.67786%	\$ 388,806.34
Shoal Creek - Shoal Creek Road Bridge, replacement with additional lanes and weight	\$ 2,719,512.35	44.67786%	\$ 1,215,019.80
Amicalola River - Goshen Church Bridge, replacement with additional lanes and weight	\$ 1,678,131.39	44.67786%	\$ 749,753.12
Whitmire Drive West, add third (center turn) lane	\$ 895,003.41	44.67786%	\$ 399,868.33
Prepare Transportation Plan (in house)	\$ -	0%	\$ -
Total	\$ 19,107,927.67		\$ 8,537,012.34

* See the *Trip Generation* section in the Appendix. Actual % of trips: 44.6778557%

■ Credit Calculation

A credit is available for this public facility category for future SPLOST sales tax contributions from new residents and employees in the future. As indicated previously, financing through SPLOST programs is assumed for the non-eligible impact fee project costs.

Table 46 shows the anticipated sales tax contribution from new residential and employment growth towards the non-eligible costs for the road projects. The sales tax information is taken from the Cost Adjustments and Credits chapter. The funding requirement for the road projects is the portion of the construction cost that is not impact fee eligible, discussed above.

The 'Annual Funding Required (NPV)' column shows the cost (inflated to the construction year) of the non-eligible capital improvement costs. These figures include both projects that are included in the current SPLOST VI, as well as other projects that are not yet SPLOST funded.

The projects that are in the current SPLOST VI program are included on

Table 45. The first three years of this six-year program have already passed, and all of the SPLOST taxes have been derived from the current population and businesses so far. In the remaining three years, new growth and development will begin generating SPLOST taxes, for which a credit must be determined. Of the SPLOST VI projects, it is assumed that one-half of the average annual project costs have been funded during the three of six years that have passed, leaving the last three years to complete the funding of the projects.

Table 46: New Growth Contribution from SPLOST Taxes

Year	Annual Funding Required (NPV)	SPLOST Percentage	Contribution from New Growth
2018	\$ 208,619.12	3.40%	\$ 7,086.95
2019	\$ 4,012,086.65	6.61%	\$ 265,039.51
2020	\$ 4,300,838.84	9.66%	\$ 415,572.88
2021	\$ 928,378.27	12.57%	\$ 116,671.10
2022		15.34%	
2023		17.99%	
2024		20.51%	
2025		22.93%	
2026		25.23%	
2027		27.44%	
2028		29.54%	
2029		31.55%	
2030		33.46%	
2031		35.29%	
2032		37.04%	
2033		38.71%	
2034		40.30%	
2035		41.82%	
2036		43.28%	
2037		44.67%	
2038		45.99%	
2039		47.27%	
2040		48.48%	
Total New Growth Contribution			\$ 804,370.43

The 'SPLOST percentage' on Table 46 is the percentage of the total countywide day-night population that represents accumulated new growth for each designated year, taken from the Cost Adjustments and Credits chapter. The amount of the non-eligible portion of the new facility multiplied by the SPLOST percentage for that year produces the figures in the 'Contribution from New Growth' column.

■ Net Impact Cost Calculation

The net impact cost per primary trip end is calculated in Table 47.

The total cost figure is reduced by the credit for SPLOST contributions (from Table 46) and by the amount of previously collected Road Improvement impact fees that are on hand (from Table 8), to produce a 'net eligible project cost' amount. This figure, divided by the future increase in primary

Road Improvements

trip ends generated by new growth and development, results in a 'net impact cost per trip end', which will be used to calculate impact fees for all nonresidential land uses.

Table 47: Net Cost to Serve New Growth

Description	Total
Eligible Cost of Road Projects	\$ 8,537,012.34
minus Credit for Tax Contributions	\$ (804,370.43)
minus Impact Fee Fund Balance	\$ (1,215.49)
= Net Eligible Road Project Cost	\$ 7,731,426.42
÷ New Growth Primary Trip Ends*	230,351
= Net Impact Cost per Trip End	\$ 33.5637

* Primary trip ends attributed to new growth. See the *Trip Generation* section in the Appendix.

■ Fee Schedule

The maximum net impact fees that could be charged in Dawson County for the Road Improvements category, based on the calculations carried out in this chapter, are shown on Table 47. The net impact fees per trip end are transferred to Table 48: Maximum Impact Fee Schedule - Road Improvements.

The following are added to the net 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 Table 2: Summary Maximum Impact Fee Schedule on page 7 of this report.

Table 48: Maximum Impact Fee Schedule - Road Improvements

ITE Code	Land Use	Trip Ends*	% New Trips	Unit of Measure	Net Fee per Unit	Adminis-tration (3%)	CIE Preparation	Total Impact Fee
Net Cost per Trip End:					\$ 33.5637			
Residential (200-299)								
210	Single-Family Detached Housing	9.52	100%	per dwelling	\$ 319.5266	\$ 9.5858	\$ 0.65	\$ 329.7624
220	Apartment	6.65	100%	per dwelling	\$ 223.1987	\$ 6.6960	\$ 0.46	\$ 230.3547
230	Residential Condominium/Townhouse	5.81	100%	per dwelling	\$ 195.0052	\$ 5.8502	\$ 0.40	\$ 201.2554
Port and Terminal (000-099)								
030	Intermodal Truck Terminal	9.89	92%	per square foot	\$ 0.3054	\$ 0.0092	\$ -	\$ 0.3146
Industrial/Agricultural (100-199)								
110	General Light Industrial	6.97	92%	per square foot	\$ 0.2152	\$ 0.0065	\$ -	\$ 0.2217
120	General Heavy Industrial	1.50	92%	per square foot	\$ 0.0463	\$ 0.0014	\$ -	\$ 0.0477
140	Manufacturing	3.82	92%	per square foot	\$ 0.1180	\$ 0.0035	\$ -	\$ 0.1215
150	Warehousing	3.56	92%	per square foot	\$ 0.1099	\$ 0.0033	\$ -	\$ 0.1132
151	Mini-Warehouse	2.50	92%	per square foot	\$ 0.0772	\$ 0.0023	\$ -	\$ 0.0795
152	High-Cube Warehouse	1.68	92%	per square foot	\$ 0.0519	\$ 0.0016	\$ -	\$ 0.0535
Lodging (300-399)								
310	Hotel or Conference Motel	8.17	100%	per room	\$ 274.2156	\$ 8.2265	\$ 0.56	\$ 283.0021
311	All Suites Hotel	4.90	100%	per room	\$ 164.4622	\$ 4.9339	\$ 0.34	\$ 169.7361
320	Motel	5.63	100%	per room	\$ 188.9638	\$ 5.6689	\$ 0.39	\$ 195.0227
Recreational (400-499)								
430	Golf Course	5.04	85%	per acre	\$ 143.7870	\$ 4.3136	\$ 0.29	\$ 148.3906
437	Bowling Alley	33.33	85%	per square foot	\$ 0.9509	\$ 0.0285	\$ -	\$ 0.9794
443	Movie Theater	78.06	85%	per square foot	\$ 2.2270	\$ 0.0668	\$ -	\$ 2.2938
460	Arena	33.33	85%	per acre	\$ 950.8770	\$ 28.5263	\$ 1.94	\$ 981.3433
480	Amusement Park	75.76	85%	per acre	\$ 2,161.3694	\$ 64.8411	\$ 4.41	\$ 2,230.6205
490	Tennis Courts	16.26	85%	per acre	\$ 463.8842	\$ 13.9165	\$ 0.95	\$ 478.7507
491	Racquet/Tennis Club	14.03	85%	per square foot	\$ 0.4003	\$ 0.0120	\$ -	\$ 0.4123
492	Health/Fitness Center	32.93	85%	per square foot	\$ 0.9395	\$ 0.0282	\$ -	\$ 0.9677
495	Recreational Community Center	33.82	85%	per square foot	\$ 0.9649	\$ 0.0289	\$ -	\$ 0.9938

Road Improvements

Maximum Impact Fee Schedule - Road Improvements continued

ITE Code	Land Use	Trip Ends*	% New Trips	Unit of Measure	Net Fee per Unit	Adminis-tration (3%)	CIE Preparation	Total Impact Fee
Institutional (500-599)								
520	Private Elementary School	15.43	80%	per square foot	\$ 0.4143	\$ 0.0124	\$ -	\$ 0.4267
530	Private High School	12.89	85%	per square foot	\$ 0.3677	\$ 0.0110	\$ -	\$ 0.3787
560	Church/Place of Worship	9.11	90%	per square foot	\$ 0.2752	\$ 0.0083	\$ -	\$ 0.2835
565	Day Care Center	79.26	10%	per square foot	\$ 0.2660	\$ 0.0080	\$ -	\$ 0.2740
566	Cemetery	4.73	90%	per acre	\$ 142.8808	\$ 4.2864	\$ 0.29	\$ 147.4572
Medical (600-699)								
610	Hospital	13.22	77%	per square foot	\$ 0.3417	\$ 0.0103	\$ -	\$ 0.3520
620	Nursing Home	7.60	75%	per square foot	\$ 0.1913	\$ 0.0057	\$ -	\$ 0.1970
630	Clinic	31.45	77%	per square foot	\$ 0.8128	\$ 0.0244	\$ -	\$ 0.8372
Office (700-799)								
710	General Office Building	11.03	92%	per square foot	\$ 0.3406	\$ 0.0102	\$ -	\$ 0.3508
714	Corporate Headquarters Building	7.98	92%	per square foot	\$ 0.2464	\$ 0.0074	\$ -	\$ 0.2538
715	Single-Tenant Office Building	11.65	92%	per square foot	\$ 0.3597	\$ 0.0108	\$ -	\$ 0.3705
720	Medical-Dental Office Building	36.13	92%	per square foot	\$ 1.1156	\$ 0.0335	\$ -	\$ 1.1491
760	Research and Development Center	8.11	92%	per square foot	\$ 0.2504	\$ 0.0075	\$ -	\$ 0.2579
770	Business Park	12.44	92%	per square foot	\$ 0.3841	\$ 0.0115	\$ -	\$ 0.3956
Retail (800-899)								
812	Building Materials and Lumber Store	45.16	81%	per square foot	\$ 1.2277	\$ 0.0368	\$ -	\$ 1.2645
813	Free-Standing Discount Superstore	50.75	75%	per square foot	\$ 1.2775	\$ 0.0383	\$ -	\$ 1.3158
814	Variety Store	64.03	49%	per square foot	\$ 1.0531	\$ 0.0316	\$ -	\$ 1.0847
815	Free-Standing Discount Store	57.24	61%	per square foot	\$ 1.1719	\$ 0.0352	\$ -	\$ 1.2071
816	Hardware/Paint Store	51.29	40%	per square foot	\$ 0.6886	\$ 0.0207	\$ -	\$ 0.7093
817	Nursery (Garden Center)	68.10	81%	per square foot	\$ 1.8514	\$ 0.0555	\$ -	\$ 1.9069
818	Nursery (Wholesale)	39.00	81%	per square foot	\$ 1.0603	\$ 0.0318	\$ -	\$ 1.0921
820	Shopping Center	42.94	75%	per square foot	\$ 1.0809	\$ 0.0324	\$ -	\$ 1.1133
823	Factory Outlet Center	26.59	81%	per square foot	\$ 0.7229	\$ 0.0217	\$ -	\$ 0.7446
826	Specialty Retail Center	44.32	81%	per square foot	\$ 1.2049	\$ 0.0361	\$ -	\$ 1.2410
841	Automobile Sales	32.30	79%	per square foot	\$ 0.8564	\$ 0.0257	\$ -	\$ 0.8821

Maximum Impact Fee Schedule - Road Improvements continued

ITE Code	Land Use	Trip Ends*	% New Trips	Unit of Measure	Net Fee per Unit	Adminis-tration (3%)	CIE Preparation	Total Impact Fee
Retail Continued								
843	Auto Parts Store	61.91	44%	per square foot	\$ 0.9143	\$ 0.0274	\$ -	\$ 0.9417
848	Tire Store	24.87	67%	per square foot	\$ 0.5593	\$ 0.0168	\$ -	\$ 0.5761
849	Tire Superstore	20.36	83%	per square foot	\$ 0.5672	\$ 0.0170	\$ -	\$ 0.5842
850	Supermarket	102.24	43%	per square foot	\$ 1.4756	\$ 0.0443	\$ -	\$ 1.5199
851	Convenience Market (Open 24 Hours)	737.99	20%	per square foot	\$ 4.9539	\$ 0.1486	\$ 0.01	\$ 5.1125
853	Convenience Market w/Gasoline Pumps	845.60	16%	per square foot	\$ 4.5410	\$ 0.1362	\$ 0.01	\$ 4.6872
854	Discount Supermarket	90.86	52%	per square foot	\$ 1.5858	\$ 0.0476	\$ -	\$ 1.6334
860	Wholesale Market	6.73	61%	per square foot	\$ 0.1378	\$ 0.0041	\$ -	\$ 0.1419
857	Discount Club	41.80	61%	per square foot	\$ 0.8558	\$ 0.0257	\$ -	\$ 0.8815
862	Home Improvement Superstore	29.80	32%	per square foot	\$ 0.3201	\$ 0.0096	\$ -	\$ 0.3297
863	Electronics Superstore	45.04	27%	per square foot	\$ 0.4082	\$ 0.0122	\$ -	\$ 0.4204
876	Apparel Store	66.40	49%	per square foot	\$ 1.0920	\$ 0.0328	\$ -	\$ 1.1248
875	Department Store	22.88	49%	per square foot	\$ 0.3763	\$ 0.0113	\$ -	\$ 0.3876
880	Pharmacy/Drugstore	90.06	40%	per square foot	\$ 1.2091	\$ 0.0363	\$ -	\$ 1.2454
890	Furniture Store	5.06	20%	per square foot	\$ 0.0340	\$ 0.0010	\$ -	\$ 0.0350
Services (900-999)								
912	Drive-in Bank	148.15	22%	per square foot	\$ 1.0939	\$ 0.0328	\$ -	\$ 1.1267
931	Quality Restaurant	89.95	38%	per square foot	\$ 1.1472	\$ 0.0344	\$ -	\$ 1.1816
932	High-Turnover (Sit-Down) Restaurant	127.15	38%	per square foot	\$ 1.6217	\$ 0.0487	\$ -	\$ 1.6704
934	Fast-Food Restaurant	496.12	27%	per square foot	\$ 4.4959	\$ 0.1349	\$ 0.01	\$ 4.6408
941	Quick Lubrication Vehicle Shop	40.00	83%	per service bay	\$ 1,114.3155	\$ 33.4295	\$ 2.27	\$ 1,150.0150
944	Gasoline/Service Station	168.56	20%	per pump	\$ 1,131.5002	\$ 33.9450	\$ 2.31	\$ 1,167.7552
945	Gasoline Station w/Convenience Market	162.78	14%	per pump	\$ 764.8904	\$ 22.9467	\$ 1.56	\$ 789.3971
947	Self-Service Car Wash	108.00	40%	per stall	\$ 1,449.9528	\$ 43.4986	\$ 2.96	\$ 1,496.4114

*Trip Ends are total trip ends per 1,000 square feet of floor area or other unit of measure as noted, per ITE *Trip Generation* manual.

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.

Appendix: Glossary

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

Capital improvement: an improvement with a useful life of 10 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 county 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, county, or intergovernmental agreement in which a defined set of public facilities provide service to development within the area. Service areas in Dawson may 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 county 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."

Appendix: Future Growth

In order to accurately calculate the demand for future services for Dawson County, 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 (2017) 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 supply of available housing 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).

'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 fire protection.

The projections used for each public facility category are specified in each public facility chapter.

Population and Housing Unit Forecasts

Population projections reflect the growth that is expected over the next 22 years. Based on the county’s rebound from the Great Recession and anticipated continuing growth in the housing market, the ultimate population forecast for 2040 is estimated at 50,000 people—basically a doubling of the number of people in the county today.

The most recent the population estimate for Dawson County published by the Census Bureau was published for 2016. This figure is used as the ‘starting point’ for the projections.

Between 2016 and the total population figure for 2040, the average annual increase is 0.9416%. This annual increase over each preceding year is applied to each year to calculate the intervening years throughout the forecast period.

The following table presents the forecast for population for each year from 2017 to 2040² and also provides a forecast for housing units over the same period. The figures shown are, in essence, mid-year estimates reflecting Census Bureau practice. In other words, the increase in population between 2017 and 2040 would actually be from July 1, 2017 to July 1, 2040.

Population and Housing Projections

	Total Population	Avg. Household Size	Occupied Housing Units	Occupancy Rate	Total Housing Units
2016	23,604	2.423	9,740	89.4%	10,897
2017	24,517	2.436	10,066	89.4%	11,262
2018	25,453	2.428	10,481	89.4%	11,726
2019	26,412	2.424	10,896	89.4%	12,190
2020	27,394	2.421	11,314	89.4%	12,658
2021	28,396	2.420	11,733	89.4%	13,127
2022	29,418	2.421	12,149	89.4%	13,592
2023	30,459	2.425	12,560	89.4%	14,052
2024	31,519	2.430	12,973	89.4%	14,514
2025	32,595	2.435	13,385	89.4%	14,975
2026	33,687	2.441	13,800	89.4%	15,439
2027	34,794	2.448	14,216	89.4%	15,905
2028	35,915	2.454	14,634	89.4%	16,372
2029	37,048	2.462	15,050	89.4%	16,838
2030	38,193	2.470	15,463	89.4%	17,300
2031	39,348	2.478	15,877	89.4%	17,763
2032	40,512	2.487	16,289	89.4%	18,224
2033	41,684	2.496	16,699	89.4%	18,683
2034	42,863	2.505	17,109	89.4%	19,141
2035	44,047	2.515	17,516	89.4%	19,597
2036	45,235	2.523	17,928	89.4%	20,058
2037	46,425	2.530	18,347	89.4%	20,526
2038	47,617	2.536	18,774	89.4%	21,004
2039	48,809	2.541	19,208	89.4%	21,490
2040	50,000	2.545	19,647	89.4%	21,981
Increase 2017-2040	25,483		9,581		10,719

To estimate the number of housing units each year, the number of occupied housing units is first determined. This is calculated by dividing the population each year by the average household size. For household sizes, estimates published this year by Woods & Poole Economics (a nationally recognized source also accepted by the State) were relied upon.

To find the total number of housing units, vacant units must be added in. This was determined by using an ‘occupancy rate’ based on the proportion of occupied units to vacant units for the last data point available—the American Community Survey published in 2015 by the Census Bureau. Dividing the number of occupied units by the occupancy rate produces the total number of housing units.

² 2016 is shown on the table for consistency with the Census Bureau’s estimate.

■ Employment Forecasts

The table below shows the forecasts for employment growth countywide in Dawson County, from 2017 to 2040. The employment figures for Dawson County are based on forecasts published by Woods & Poole Economics in their latest (2017) *Georgia Profile* for Dawson County. Woods & Poole counts jobs, not just employed people, which captures people holding two or more jobs, self-employed sole proprietors and part-time workers. This gives a more complete picture than Census figures (the number of people with jobs).

In the table below the total employment figures are refined to show what is referred to as ‘non-building related’ jobs. ‘Non-building related’ jobs are those that do not normally require issuance of a building permit, and thus would not be assessed an impact fee. Such jobs include any employment that is considered to be transitory in nature, such as those working on construction sites or are strictly land-based such as farming and other agricultural workers.

This is done to better measure the services being provided by the County, which in this report will be measured and, ultimately, assessed based on structures.

Employment Projections

	Total Employment	Non-Building Related*	Government	Private Sector Employment
2016	12,328	1,127	1,202	9,999
2017	12,652	1,144	1,218	10,290
2018	12,974	1,162	1,234	10,578
2019	13,283	1,176	1,250	10,857
2020	13,594	1,192	1,266	11,136
2021	13,903	1,208	1,281	11,414
2022	14,217	1,222	1,298	11,697
2023	14,531	1,237	1,313	11,981
2024	14,850	1,252	1,328	12,270
2025	15,172	1,263	1,342	12,567
2026	15,500	1,275	1,357	12,868
2027	15,832	1,286	1,371	13,175
2028	16,165	1,295	1,385	13,485
2029	16,505	1,305	1,398	13,802
2030	16,845	1,314	1,412	14,119
2031	17,189	1,322	1,425	14,442
2032	17,543	1,330	1,439	14,774
2033	17,895	1,337	1,452	15,106
2034	18,249	1,344	1,464	15,441
2035	18,607	1,350	1,477	15,780
2036	18,974	1,357	1,489	16,128
2037	19,342	1,363	1,501	16,478
2038	19,713	1,370	1,512	16,831
2039	20,095	1,375	1,524	17,196
2040	20,477	1,382	1,535	17,560
Increase 2017-2040	7,825	238	317	7,270

The table also shows the number of workers employed by governmental entities (county, state and federal) as estimated by Woods & Poole for each year. Governments are exempt from impact fees, whether a building is to be constructed or not.

The last column on the table shows what is called ‘private sector employment’, although it also includes nonprofits and institutions. The numbers are derived by subtracting the ‘non-building related’ workers and the ‘government’ workers from the total employment figures. Businesses employing these ‘private sector’ workers are the ones that would be most likely to be assessed an impact fee.

* Includes farm, forestry, mining and construction workers.
Source: 2017 Georgia Profile, Woods & Poole, Economists.

■ **Service Area Projections**

The entire county is a single service area because all Dawson County services being considered for impact fee funding serve all residents and business in the county, whether in the unincorporated area or within the City of Dawsonville.

As explained in the text of this report, impact fees for the library services and the parks & recreation facilities are paid exclusively by residential uses. Thus, the housing unit count and projections presented earlier form the basis for those impact fee calculations.

For the fire protection and law enforcement categories, the 24-hour service population—called the day-night population—is used for overall Level of Service calculations. Impact fees in these categories are assessed on a per-housing unit basis or on a per-nonresidential square foot basis, depending on the use.

The day-night population calculation is a combination of the population projections and future (‘private sector’) employment projections discussed earlier in this Appendix. The use of day-night population in impact fee calculations is based upon the clear rational nexus between persons and services demanded on a 24-hour basis.

Day-Night Population

	Total Population	Private Sector Employment	Total Day-Night Population
2016	23,604	9,999	33,603
2017	24,517	10,290	34,807
2018	25,453	10,578	36,031
2019	26,412	10,857	37,269
2020	27,394	11,136	38,530
2021	28,396	11,414	39,810
2022	29,418	11,697	41,115
2023	30,459	11,981	42,440
2024	31,519	12,270	43,789
2025	32,595	12,567	45,162
2026	33,687	12,868	46,555
2027	34,794	13,175	47,969
2028	35,915	13,485	49,400
2029	37,048	13,802	50,850
2030	38,193	14,119	52,312
2031	39,348	14,442	53,790
2032	40,512	14,774	55,286
2033	41,684	15,106	56,790
2034	42,863	15,441	58,304
2035	44,047	15,780	59,827
2036	45,235	16,128	61,363
2037	46,425	16,478	62,903
2038	47,617	16,831	64,448
2039	48,809	17,196	66,005
2040	50,000	17,560	67,560
Increase 2017-2040	25,483	7,270	32,753

The day-night population is used to determine Level of Service standards for facilities that serve both the resident population and business employment. The fire department, for instance, protects one’s house from fire 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 service provider facility and a fair way to allocate the costs of such a facility among all of the beneficiaries.

Impact fee calculations for road improvements, on the other hand, are based on the number of vehicle trips generated by homes and businesses onto the county’s road system. These trip generation figures are translated into per-housing unit and per-nonresidential floor area fees using the different trip rates specific to each type of land use.

This is discussed more thoroughly in the next Appendix Section.

Appendix: Trip Generation

In order to calculate new growth and development's fair share of the cost of road improvements, it is necessary to establish how much of the future traffic on Dawson County's roads will be generated by new growth, over and above the traffic generated by the county's residents and businesses today. This Appendix Section describes the process through which this determination is made.

■ Summary

A Level of Service must be established for road improvements in order to assure that, ultimately, existing development and new growth are served equally. This Section also presents the process through which new growth and development's 'fair share' of road improvement costs is calculated, and tables summarizing the technical portions of this methodology are included.

Level of Service

The County has set its Level of Service for road improvements at LOS "D", a level below which most roads in the county operate. Using this LOS maximizes roadway capacity before traffic conditions actually break down (LOS "F").

All road improvement projects benefit existing and future traffic proportionally to the extent that relief from over-capacity conditions eases traffic problems for everyone. For example, since new growth by 2040 will represent a certain portion of all 2040 traffic, new growth would be responsible for that portions' cost of the road improvements.

It is noted that the cost-impact of non-Dawson County generated traffic on the roads traversing the county (cross commutes) is off-set by state and federal assistance. The net cost of the road projects that accrues to Dawson County reasonably represents (i.e., is 'roughly proportional' to) the impact on the roads by Dawson County residents driving to and from their homes, and commuters that come in to work in the county.

The basis for the road impact fee would therefore be Dawson County's cost for the improvements divided by all traffic generated within the county in 2040 (existing today plus new growth)—i.e., the cost per trip—times the traffic generated by new growth alone. For an individual land use, when a building permit is issued, the cost per trip would be applied to the number of trips that will be generated by the new development, assuring that new growth would only pay its 'fair share' of the road improvements that serve it.

Approach

This methodology proceeds along the following lines:

- Total traffic currently generated by Dawson County residents and businesses in 2017 on the road system within the county is calculated from trip generation and commuting data. Various data sources are relied upon to determine current conditions, as explained in each appropriate section, below.
- Future Dawson County-generated traffic from new growth in the county is calculated from housing unit and employment forecasts to 2040.
- The portion of total 2040 traffic that is generated by new housing units and employment in the county establishes the percentage of Dawson County's cost of the future road improvements that can be included in an impact fee.

Summary Table

The table below shows how the portion of 2040 traffic generated by new growth is calculated. The figures represent all trips generated by land use, including pass-by and diverted trips.

Average Daily Trip Ends Generated by New Growth

	2017	2040	Increase	Percent New Growth Trip Ends
Residential Trips	105,056	205,046	99,990	↓
Nonresidential Trips	242,393	413,650	171,257	
Less: Internal Commutes*	(9,080)	(15,496)	(6,416)	
Net New Trip Ends	338,369	603,200	264,831	43.9%

* Residents who work in Dawson County. These trips to and from work are included in the residential trips, above.

The next table, below, calculates the Primary Trip Ends generated by existing and future traffic by deleting pass-by and diverted trips, as discussed below.

Primary Daily Trip Ends Generated by New Growth

	Percent Primary Trip Ends*	Primary Trip Ends			Percent New Growth Primary Trip Ends
		2017	2040	Increase	
Residential Trips	80%	83,619	163,207	79,587	↓
Commercial	51%	117,129	199,885	82,756	
Industrial+Utility	92%	11,222	19,148	7,926	
Less: Internal Commutes	100%	(9,080)	(15,496)	(6,416)	
Net New Primary Trip Ends		202,890	366,743	163,853	44.7%

* Derived from 'Trip Generation Handbook' chapter, *Trip Generation*, 9th Edition, Institute of Transportation Engineers.

Overall, new residents and businesses located within Dawson County will generate 53% (more accurately, 44.6778557%) of all Dawson County vehicles on its roads. Thus, new growth's 'fair share' of the cost to the County to provide road improvements to serve current and future traffic cannot exceed this figure.

■ Pass-by and Diverted Trips

The impact of new growth and development on Dawson County's road network is the increased traffic added to the system, expressed by transportation engineers as 'trips'. Every 'trip' has two ends—a beginning at its origin and an end at its destination (known as 'trip ends'). There are three types of trips, defined as:

A **Primary Trip** (and its trip ends)—a vehicle travelling from its original beginning to its intended final destination. Driving from one's home to one's place of work is an example of a primary trip.

A **Pass-by Trip**—a vehicle travelling along its usual route from its origin to its final destination that stops off at an intermediate location for any reason. A trip from home to work that stops along the way for gas, dropping off a child at daycare, picking up coffee or dinner, or for any other reason, represents a 'pass-by' trip at the intermediate location.

A **Diverted Trip** (previously called a diverted 'link' trip)—a vehicle that diverts from its normal primary route between its origin to its final destination, and takes a different route to stop off at an intermediate location for any reason. While a pass-by trip remains on its normal route, a diverted trip changes its route to other streets to arrive at the intermediate stop.

New primary trips add vehicles to the road network. Pass-by and diverted trips involve the same vehicles stopping off between their original beginnings and their final destinations, and therefore do not add new vehicles to the road network—the vehicles were already there on their way to their final destinations.

These different types of trips result in different types of 'trip ends'. On a home-to-daycare-to-work trip, for instance, there are two primary trip ends (home and work) and two pass-by or diverted trip ends: arriving at the daycare center and leaving from there to drive to work, for instance. The net impact on the road network, however, is created by the one vehicle and its two primary trip ends.

Impact fee calculations take note of these pass-by and diverted trip ends as not adding to the overall traffic on the road network, and deletes them from the total trip ends reported in ITE's *Trip Generation* manual. While the table above uses overall average percentages of primary trip ends derived from ITE for broad land use categories, the actual percentage for each land use listed on the impact fee schedule for roads is applied to the total trip ends to determine the primary trip ends attributed to that land use.

Although both summary tables above reflect about the same percentage of 2040 traffic that will be generated by new growth, the increase in primary trip ends from the second table will play an important role in calculating the per-trip road impact fee.

■ Residential Trip Generation

Average trip generation rates published by the Institute of Transportation Engineers (ITE) differentiate between ‘single-family detached housing’ and ‘apartments’. The closest correlations with the US Census definitions are ‘single-family units’ and ‘multi-family units’, which are shown on the following table.

Residential Units by Type: 2017 and 2040


	2015*	Percent**	Total in 2017***	Increase 2017-2040	Total in 2040
Single-Family Units	9,837	93.3%	10,510	10,003	20,513
Multi-Family Units	704	6.7%	752	716	1,468
Total	10,541	100.0%	11,262	10,719	21,981

* Based on American Community Survey report (Census Bureau).
 ** Percent of 2015 total housing units.
 *** See Forecasts chapter for housing unit projections.

The 2015 breakdown of housing units by type on the table above are taken from the most recent American Community Survey for Dawson County (published by the Census Bureau). The 2015 percentage by housing type (single-family and multi-family) is calculated, and applied to the total number of housing units projected in 2017 (taken from the Future Growth Appendix of this report). It is assumed that these percentages will persist into the future, producing a breakdown of the projected 10,719 new housing units forecast for the 2017-2040 period.

The next table, below, calculates the amount of traffic that is generated by the county’s housing stock today, and the amount that will be generated in 2040.

Residential Trip Generation: 2017-2040 New Growth Increase

	ADT* Trip Ends	2017 Units	2017 ADT Trip Ends	2040 Units	2040 ADT Trip Ends	Increase 2017-2040	Percent New Growth Trip Ends
Single-Family Units	9.52	10,510	100,055	20,513	195,284	95,229	
Multi-Family Units	6.65	752	5,001	1,468	9,762	4,761	
Total		11,262	105,056	21,981	205,046	99,990	

* Average Daily Traffic (trip ends) on a weekday; Institute of Transportation Engineers *Trip Generation*, 9th Edition. Total includes trips to/from work.

The calculations are made on the basis of ‘average daily traffic’ on a normal weekday, using average trip generation rates derived through multiple traffic studies (350 for single-family and 86 for apartments) and published by ITE. The rates are expressed for ‘trip ends’—that is, traffic both leaving and coming to a housing unit.

Comparing traffic in 2017 to 2040, the future increase in trip ends can be calculated, which will represent 48.8% of all residential trip ends generated in the county.

It should be noted that the traffic generated includes trips to and from work and, more particularly, residents who work at a business within the county.

■ Nonresidential Trip Generation

Calculating traffic generated by businesses located in Dawson County is more problematical than residential trips because there is no breakdown of types of businesses in the county that is readily available. In addition, while employment forecasts have been made in terms of the number of jobs, there is no data available for floor areas, much less by detailed type of use.

The alternate is to view nonresidential traffic generation on a broad 'average' basis. For this, there is data available from ITE for a number of individual uses relating to the total number of trips generated per employee. These trips, of course, include not only trips taken by the employees (to/from work, lunch, etc.) but also customers and others that are attracted to the use, serve it or are served by it in some way.

The Average Daily Traffic (ADT) numbers on the following table, therefore, are calculated by dividing all trips to a use—employees, customers, deliveries to or from, etc.—by the number of employees alone. Since there is more data available for the average number of employees per 1,000 square feet of floor area, it enables a determination of the average total trips generated by the use by the same floor area (and thus the number per '1' square foot of floor area for impact fee calculations).

The table on the following page shows the 'trips per employee' per 1,000 square feet of floor area for those uses for which impact fees are commonly collected and for which the data is available.

Overall, the average trip generation rate of all uses shown on the following table is 10.21 trips per employee for 'industrial' uses and 25.31 for all 'commercial' uses. The 'industrial' category includes such uses as manufacturing and assembly, storage and transportation of goods; the 'commercial' category includes all sales and service uses such as stores, offices, motels, banks, amusements and private institutions). The last column shows the average rate for all 'commercial' uses listed, as opposed to the 'industrial' uses shown in the column on its left.

Although the 'overall' averages are useful for projecting total traffic generation, impact fees for particular uses will reflect the actual average trip generation rate for the specific use.

ITE Trips-per-Employee Data

			<u>ADT</u>		<u>Average</u>	<u>Average</u>
	ITE CODE	LAND USE	Trip Ends per Employee		by Category	All Commercial
<i>Port and Terminal (000-099)</i>	30	Intermodal Truck Terminal	6.99	}	10.21	}
<i>Industrial (100-199)</i>	110	General Light Industrial	3.02			
	120	General Heavy Industrial	0.82			
	140	Manufacturing	2.13			
	150	Warehousing	3.89			
	151	Mini-Warehouse	32.47			
	152	High-Cube Warehouse	22.13			
<i>Lodging (300-399)</i>	310	Hotel or Conference Motel	14.34	}	13.58	
	320	Motel	12.81			
<i>Recreational (400-499)</i>	430	Golf Course	20.52	}	34.79	
	443	Movie Theater	53.12			
	460	Arena	10.00			
	480	Amusement Park	8.33			
	490	Tennis Courts	66.67			
	491	Racquet/Tennis Club	45.71			
	492	Health/Fitness Center	46.71			
	495	Recreational Community Center	27.25			
<i>Institutional (500-599)</i>	520	Private Elementary School	15.71	}	29.58	
	530	Private High School	19.74			
	560	Church/Place of Worship	26.24			
	565	Day Care Center	28.13			
	566	Cemetery	58.09			
<i>Medical (600-699)</i>	610	Hospital	4.50	}	5.26	
	620	Nursing Home	3.26			
	630	Clinic	8.01			
<i>Office (700-799)</i>	710	General Office Building	3.32	}	4.18	
	714	Corporate Headquarters Building	2.33			
	715	Single-Tenant Office Building	3.70			
	720	Medical-Dental Office Building	8.91			
	760	Research and Development Center	2.77			
	770	Business Park	4.04			
<i>Retail (800-899)</i>	812	Building Materials and Lumber Store	32.12	}	32.86	
	814	Variety Store	66.70			
	815	Free-Standing Discount Store	28.84			
	816	Hardware/Paint Store	53.21			
	817	Nursery (Garden Center)	21.83			
	818	Nursery (Wholesale)	23.40			
	826	Specialty Retail Center	22.36			
	841	Automobile Sales	21.14			
	850	Supermarket	87.82			
	854	Discount Supermarket	40.36			
	860	Wholesale Market	8.21			
	861	Discount Club	32.21			
	875	Department Store	11.56			
	890	Furniture Store	12.19			
<i>Services (900-999)</i>	912	Drive-in Bank	30.94			

Source: *Trip Generation*, 9th Edition, Institute of Transportation Engineers, where survey results given for key land uses.

We know from the 2010 Census how many people worked in Dawson County based on commuting patterns. The next table provides a breakdown between commercial and industrial employment in the county and calculates trip ends generated by each.

Appendix: Trip Generation

Tax base valuations give us some clue as to the breakdown. When the County's 'industrial' and 'utility' tax valuations are combined, the figures suggest that a little over 88% of all uses are 'commercial' in nature, while almost 12% are industrial. These percentages, applied to total employment in the county, give us the estimated number of employees in 2010 in each category.

Nonresidential Trip Generation: 2010 Census


	Tax Base		Percent of Total	2010 Employees	Average ADT	Total Nonres Trip Ends
Commercial	\$ 235,135,994	\$ 235,135,994	88.4%	7,049	25.31	178,410
Industrial	\$ 6,269,281	\$ 30,892,635	11.6%	1,581	10.21	16,138
Utility	\$ 24,623,354					
Total Nonresidential	\$ 266,028,629	\$ 266,028,629		7,583		194,548
				Internal Commutes*	3,644 times 2 =	(7,288)
					Net Nonres Trips	187,260

* Residents who work in Dawson County. These trips are included in residential trip generation rate.

The table calculates the total number of trips using the average rates for commercial and industrial from the ITE Trips-per-Employee Data table on the previous page. From the total of all nonresidential trips is deducted the number of trips to/from work generated by county residents, since these trips have already been calculated as part of the residential trip generation rates (i.e., county residents driving to/from work at county establishments).

Lastly, the following table calculates the total number of trip ends that will be generated by new nonresidential growth in future traffic on Dawson County's roads.

Nonresidential Trip Generation: 2017-2040 New Growth Increase

	2017 Employees	2017 Trip Ends	2040 Employees	2040 Trip Ends	2017-2040 Increase	Percent New Growth Trip Ends	
Commercial	9,095	230,195	15,521	392,837	162,642		
Industrial+Utility	1,195	12,198	2,039	20,813	8,615		
Total	10,290	242,393	17,560	413,650	171,257		
Less: Internal Commutes at	3.75%	(9,080)		(15,496)	(6,416)		
Net Nonres Trip Ends		233,313		398,154	164,841		41.4%

The preceding table shows the number of trip ends currently generated by Dawson County businesses based on 2017 employment. The trip ends by use are distributed using the same percentages calculated on the previous table. The same calculations are made for the year 2040 based on projected employment in the county, and the difference between 2017 and 2040 represents trip ends generated by future growth and development. This totals 41.4% of all nonresidential 2040 trip ends.

The results of the residential and nonresidential trip generation analyses are combined on the Summary table at the beginning of this Appendix Section for an overall calculation of new growth's share of future traffic generated by Dawson County residents and businesses. From these figures, pass-by and diverted trip ends are then deleted to determine primary trip ends, which more closely relates to vehicles on the road and thus contribute to traffic congestion.

■ Terminology

This Methodology uses the term 'average daily traffic' (ADT) for a weekday, which is defined by ITE as the 'average weekday vehicle trip ends', which are "the average 24-hour total of all vehicle trips counted from a study site from Monday through Friday."

Additionally, ITE defines a 'trip or trip end' as "a single or one-direction vehicle movement with either the origin or the destination (exiting or entering) inside a study site. For trip generation purposes, the total trip ends for a land use over a given period of time are the total of all trips entering plus all trips exiting a site during a designated time period".

Lastly, ITE defines 'average trip rate' as "the weighted average of the number of vehicle trips or trip ends per unit of independent variable (for example, trip ends per occupied dwelling unit or employee) using a site's driveway(s). The weighted average rate is calculated by dividing the sum of all independent variable units where paired data is available. The weighted average rate is used rather than the average of the individual rates because of the variance within each data set or generating unit. Data sets with a large variance will over-influence the average rate if they are not weighted.

ARTICLE III. - DEVELOPMENT IMPACT FEES

State Law reference— Development impact fees, O.C.G.A. § 36-71-1 et seq.

AS AMENDED, AS FOLLOWS:

Sec. 101-57. - Short title, authority, and applicability.

- (a) *Short title.* This article shall be known and may be cited as the Development Impact Fee Ordinance of Dawson County, Georgia, or for brevity the impact fee ordinance.
- (b) *Authority.* This article has been prepared and adopted by the board of commissioners of dawson county, georgia, in accordance with the authority provided by Article 9, Section 2, Paragraph 3 of the Constitution of the State of Georgia, the *georgia development impact fee act* O.C.G.A. § 36-71-1 et seq., as amended and such other laws as may apply to the provision of public facilities and the power to charge fees for such facilities.
- (c) *Applicability.*
 - (1) The provisions of this article shall not be construed to limit the power of ~~Dawson County, Georgia~~the county, to use any other legal methods or powers otherwise available for accomplishing the purposes set forth herein either in substitution of or in conjunction with this article.
 - (2) This article shall apply to all areas under the regulatory control and authority of ~~Dawson County, Georgia~~the county and such other areas as may be included by intergovernmental agreement.

(Ord. of 7-20-2006, § 1)

Sec. 101-58. - Findings, purpose, and intent.

- (a) *Findings.* The Board of Commissioners of Dawson County, Georgia, finds and declares:
 - (1) That an equitable program for planning and financing public facilities to serve new growth and development is necessary in order to promote and accommodate orderly growth and development and to protect the public health, safety and general welfare of the citizens of ~~Dawson County~~the county;
 - (2) That certain public facilities as herein defined have been and must be further expanded if new growth and development is to be accommodated at the same level of service available to existing development; and
 - (3) That it is fair and equitable that new growth and development shall bear a proportionate share of the cost of such public facilities necessary to serve new growth and development.
- (b) *Purpose.*
 - (1) The purpose of this article is to impose impact fees as hereinafter set forth for certain public facilities as hereinafter defined.
 - (2) It is also the purpose of this article to ensure that adequate public facilities are available to serve new growth and development in ~~Dawson County~~the county and to provide that new growth and development bears a proportionate share of the cost of new public facilities needed to serve them.
- (c) *Intent.* This article is intended to implement and be consistent with the *dawson county comprehensive plan*, as it may be adopted or amended in accord with the Georgia Comprehensive Planning Act (O.C.G.A. § 50-8-1 et seq.), and the applicable *Minimum Standards and Procedures for Local Comprehensive Planning* and the *Development Impact Fee Compliance Requirements* both as adopted by the georgia board of community affairs and amended from time to time.

(Ord. of 7-20-2006, § 2)

Sec. 101-59. - Rules of construction and definitions.

- (a) The provisions of this article shall be construed so as to effectively carry out its purpose in the interest of the public health, safety, and general welfare of the citizens of Dawson County.
- (b) Rules of construction. Unless otherwise stated in this article, the following rules of construction shall apply to the text of this article:
- (1) In the case of any difference of meaning or implication between words or phrases as used in this article and as used in other codes, regulations, or laws of Dawson County, such difference shall not affect the meaning or implication of such words or phrases as used in this article.
 - (2) In the case of any difference of meaning or implication between the text of this article and any caption illustration, summary table, or illustrative table, the text shall control.
 - (3) The word "shall" is always mandatory and not discretionary; the word "may" is permissive.
 - (4) Words used in the present tense shall include the future and words used in the singular number shall include the plural and the plural the singular, unless the context clearly indicates the contrary.
 - (5) The word "person" includes an individual, a corporation, a partnership, an incorporated association, or any other legal or similar entity.
 - (6) The conjunction "and" indicates that all the connected terms, conditions, provisions, or events shall apply.
 - (7) The conjunction "or" indicates that the connected items, conditions, provisions, or events may apply singly or in any combination.
 - (8) The use of "either . . . or" indicates that the connected items, conditions, provisions or events shall apply singly and not in combination.
 - (9) The word "includes" or "including" shall not limit a term to the specific example but is intended to extend its meaning to all other instances or circumstances of like kind or character.
 - (10) The article, section, and paragraph headings and enumerations used in this article are included solely for convenience and shall not affect the interpretation of this article.
- (c) Definitions. As used in this article, the following terms shall have the meanings set forth below:

Administrator means the County Manager of Dawson County, Georgia, or the county manager's designee, who is hereby charged with implementation and enforcement of this article.

Board of commissioners means the Board of Commissioners of Dawson County, Georgia.

Building permit is the permit required for new construction, completion of construction, or an interior finish pursuant to the applicable building code. As used herein the term shall not include permits required for remodeling, rehabilitation, or other improvements to an existing structure provided there is no increase in the demand placed on those public facilities as defined herein.

Capital improvement means 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 means that portion of the *dawson county comprehensive plan* that sets out projected needs for system improvements during the planning horizon established therein, which provides a schedule that will meet the anticipated need for system improvements, and which provides a description of anticipated funding sources for each required improvement, as most recently adopted or amended by the board of commissioners.

Commencement of construction. For private development, means initiation of physical construction activities as authorized by a development or building permit and leading to completion of a foundation

inspection or other initial inspection and approval by a public official charged with such duties; ~~and~~ and for public projects, means expenditure or encumbrance of any funds whether they be development impact fee funds or not; ~~For~~ for a public facilities project or advertising of bids to undertake a public facilities project.

Comprehensive plan means the dawson county plan or planning elements as adopted or amended in accord with the *georgia comprehensive planning act* (O.C.G.A. § 50-8-1 et seq.) and the applicable *minimum standards and procedures for local comprehensive planning* as adopted by the georgia board of community affairs.

County means Dawson County, Georgia, a legal subdivision of the State of Georgia, and also refers to the Board of Commissioners of Dawson County, Georgia, or the appropriate county official appointed by the Board of Commissioners, whenever official action is taken or required.

Day means a calendar day unless otherwise specifically identified as a work day or other designation when used in the text.

Developer means any person or legal entity undertaking development.

Development means any action which creates additional demand on or need for public facilities, as defined herein, and includes any construction or expansion of a building, structure, or use; any change in use of land, a building or structure; ~~or the connection of any building or structure to a public utility.~~

Development approval means any written authorization such as issuance of a building permit, land disturbance permit, or other approval for grading or site development, or other forms of official action required by local law or regulation prior to commencement of construction.

Development impact fee means the payment of money imposed upon and paid by new development as a condition of development approval as its proportionate share of the cost of system improvements needed to serve new growth and development.

Encumber means to legally obligate by contract or otherwise commit to use by appropriation or other official act of ~~Dawson County, Georgia~~ the county.

Excess capacity means that portion of the capacity of a public facility or system of public facilities which is beyond that necessary to provide adequate service to existing development at the adopted level of ~~service~~ service standard.

Fee payor means that person or entity who pays a development impact fee or his or her legal successor in interest when the right or entitlement to any refund of previously paid development impact fees which is required by this article has been expressly transferred or assigned to the successor in interest. In the absence of an express transfer or assignment of the right or entitlement to any refund of previously paid development impact fees, the right or entitlement shall be deemed "not to run with the land."

Individual assessment means the engineering, financial, or economic documentation prepared by a fee payor or applicant to allow individual determination of a development impact fee other than by use of the applicable fee schedule.

Individual assessment determination means a finding by the administrator that an individual assessment study does or does not meet the requirements for such a study as established by this article or if the requirements are met, the fee calculated therefrom.

Level of service means a measure of the relationship between service capacity and service demand for specified public facilities as established by ~~Dawson County, Georgia~~ the county, in terms of demand to capacity ratios, ~~or~~ the comfort and convenience of use or service of such public facilities, or both.

Present value means the current value of past, present, or future payments, contributions, or dedications of goods, services, materials, construction, or money, as calculated using accepted methods of financial analysis for determination of net present value.

Project means a single improvement or set of interrelated improvements undertaken together within a finite time period at a specific location; ~~with~~ With regard to land development, a project may be identified as those construction activities authorized collectively by a single building permit or other development

approval or for an interrelated collection of buildings and common public facilities such as a residential subdivision or an office park.

Project improvements means site specific improvements or facilities that are planned, designed, or built to provide service for a specific development project and that are necessary for the use and convenience of the occupants or users of that project only and that are not "system" improvements. The character of the improvement shall control a determination of whether an improvement is a "project" improvement or a "system" improvement and the physical location of the improvement onsite or off-site shall not be considered determinative of whether an improvement is a "project" improvement or a "system" improvement. A project improvement may provide no more than incidental service or facility capacity to persons other than users or occupants of the particular project they serve. No improvement or facility included in a plan for public facilities and approved for public funding by Dawson County, Georgia the county, shall be considered a project improvement.

Property owner means that person or entity that holds legal title to property.

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

Public facilities (and public facility categories) means:

- (1) Parks, open space, and recreation areas, and related facilities;
- (2) Public safety facilities including sheriff, inmate housing;
- (3) Fire, emergency medical, and rescue facilities;
- (4) Libraries and related facilities; and
- (5) Roads, streets, and bridges, including rights-of-way, traffic signals, landscaping, and any other local components of state or federal highways.

Service area means a geographically defined area as designated in the capital improvements element of the comprehensive plan in which a defined set of public facilities provide or are proposed to provide service to existing or future development.

System improvement costs means costs incurred to provide public facilities capacity to serve new growth and development, including the costs of planning, design, engineering, construction, land acquisition, and land improvement for the construction or reconstruction of facility improvements or expansion. System improvement costs include 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 improvements element, and administrative costs of up to three percent of the total of all other system improvement 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 to finance system improvements. ~~but such~~ System improvement costs do not include routine and periodic maintenance expenditures, personnel training and other operating costs.

System improvements means capital improvements that are public facilities and are designed to provide service to more than one project or to the community at large, in contrast to "project" improvements.

Unit of development means the standard governmental measure of land development activity for a specific type of land use upon which the rate of demand for public service and facilities is based, such as a dwelling unit, square foot of nonresidential floor area, motel room, etc.

Unused or excess impact fee means any individual impact fee payment from which no amount of money or only a portion thereof has been encumbered or expended according to the requirements of this article.

(Ord. of 7-20-2006, § 3)

Sec. 101-60. - Imposition of development impact fees.

- (a) *When required; amount.* Any person who after ~~the effective date of the ordinance from which this article July 20, 2006, is derived~~ engages in development shall pay a development impact fee in the manner and amount set forth in this article.
- (b) *Construction not subject to impact fees.* The following projects and construction activities do not constitute "development" as defined in this article, and are therefore not subject to the imposition of impact fees:
- (1) Rebuilding no more than the same number of units of development as defined ~~to~~ in this article that were removed by demolition or destroyed by fire or other catastrophe on the same lot or property.
 - (2) Remodeling or repairing a structure that does not result in an increase in the number of units of development.
 - (3) Replacing a residential housing unit with another housing unit on the same lot or property.
 - (4) Placing or replacing a manufactured home in a manufactured home park on a prepared manufactured home pad in existence and operation prior to the effective date of this article.
 - (5) Placing a temporary construction office or temporary sales office on a lot during the period of construction or build-out of a development project.
 - (6) Constructing an addition to or expansion of a residential housing unit that does not increase the number of housing units.
 - (7) Adding uses that are typically accessory to residential uses and intended for the personal use of the residents, such as a deck or patio, satellite antenna, pet enclosure, or private recreational facilities such as a swimming pool.
- (c) *Grandfathered projects.*
- (1) Notwithstanding any other provision of this article, ~~that portion of any~~ project for which a valid building permit has had been issued prior to ~~the effective date of this article July 20, 2006,~~ shall not be subject to development impact fees so long as the permit project remains valid and in its construction and land use is commenced and is pursued as authorized according to the terms of the such building permit.
 - (2) Any building for which a valid and complete application for a building permit has been received prior to the effective date of an amendment to this article may proceed without payment of additional impact fees otherwise imposed by this article, provided that:
 - a. All fees and development ~~exactions-impact fees~~ in effect prior to the effective date of ~~the ordinance from which this article is derived~~ shall be or have been paid in full; and
 - b. Said construction shall be commenced, pursued, and completed within the time established by the building permit or within 180 days, whichever is later.
 - ~~(3) Notwithstanding any other provision of this article, that portion of a project for which a foundation has been installed within 12 months of the issuance of a valid building permit and for which a certificate of occupancy is properly issued within 24 months of the issuance of a valid building permit shall not be subject to development impact fees.~~
- (d) *Method of calculation.*
- (1) Any development impact fee imposed pursuant to this article shall not exceed a project's proportionate share of the cost of system improvements, shall be calculated on the basis of the establishment of service areas, and shall be calculated on the basis of levels of service for public facilities that are the same for existing development as for new growth and development, as established in the capital improvements element of the comprehensive plan.

- (2) Notwithstanding anything to the contrary in this article, the calculation of impact fees shall be net of credits for the present value of ad valorem taxes or other revenues as established in the capital improvements element of the comprehensive plan and which:
 - a. Are reasonably expected to be generated by new growth and development; and
 - b. Are reasonably expected on the basis of historical funding patterns to be made available to pay for system improvements of the same category and in the same service area for which an impact fee is imposed.
- (3) The method of calculating impact fees for public facilities under this article shall be maintained for public inspection as a part of the official records of ~~Dawson County, Georgia~~the county, and may be amended from time to time by official act.
- (4) In addition to the cost of new or expanded system improvements needed to be built to serve new development, the cost basis of a development impact fee may also include the proportionate cost of existing system improvements to the extent that such public facilities have excess service capacity and new development will be served by such facilities as established in the capital improvements element ~~of the comprehensive plan~~.
- (5) Development impact fees shall be based on actual system improvement costs or reasonable estimates of such costs as set forth in the capital improvements element ~~of the comprehensive plan~~.

(Ord. of 7-20-2006, § 4; Ord. of 5-21-2009(1), § I)

Sec. 101-61. - Fee assessment and payment.

~~(a) Zero percent assessment. The fee assessment shall be zero percent of any amount owed pursuant to the fee schedules attached hereto and incorporated herein as attachment A, attachment B, and attachment C.~~

~~(b)~~ (ba) *Fee schedule.*

- (1) Payment of a development impact fee pursuant to the fee schedules attached hereto and incorporated herein as attachment A ~~for a property located inside of Dawson County and within the established GA 400 Corridor Study Area attachment C, and attachment B for property located inside of Dawson County but outside of the established corridor study area~~ shall constitute full and complete payment of the project's proportionate share of system improvements as individually levied by ~~Dawson County~~the county and shall be deemed to be in compliance with the requirements of this article.
- (2) When a land development activity for which an application for a building permit has been made includes two or more buildings, structures, or other land uses in any combination, including two or more uses within a building or structure, the total development impact fee shall be the sum of the fees for each and every building, structure, or use, including each and every use within a building or structure.
- (3) In the event that an applicant contends that the land use category of the proposed developments project is not shown on the fee schedule or fits within a different category, then:
 - a. The administrator in his or her sole discretion shall make a determination as to the appropriate land use designation and the appropriate development impact fee.
 - b. In making such determination, the administrator may require such additional information from the applicant as necessary to form a logical fee determination relative to the impact fees shown on the adopted fee schedule.
 - c. If a land use designation is not in a category contained in this article, then an appropriate new category may be added by the administrator and an appropriate fee established under

the county's current impact fee methodology, subject to annual confirmation by the board of commissioners.

- d. Appeals from the decision of the administrator shall be made to the board of commissioners in accordance with the administrative appeals section of this article.

(eb) *Timing of assessment and payment.*

- (1) Development impact fees shall be assessed at the time of application for a building permit.
- (2) All development impact fees shall be collected no earlier than the time of issuance of a building permit, and no later than as a prerequisite to issuance of a certificate of occupancy for the building.
- (3) For projects not involving issuance of a building permit, all development impact fees shall be collected at the time of approval of the development permit, or such other authorization, to commence construction or to commence use of a property.
- (4) If the final use of a building cannot be determined at the time of the initial building permit, the administrator shall have the authority to assess a development impact fee based on the most likely use of the building and shall adjust the fee in accordance with the actual use prior to issuance of an interior finishes permit or approval of a certificate of occupancy. An adjustment may result in a refund to the fee payor or payment of the marginal increase of the adjusted fee over the amount already paid.
- (5) Notwithstanding any other provision of this article, any future change in demand for public facilities in excess of the average demand anticipated at the time of issuance of the building permit shall be assessed such additional fee as would otherwise have been due. Future changes in demand may result from a change in the land use category of the occupant of the building or property, the expansion of a building, or the expansion of a land use on a property that results in an increase in the units of development (as defined herein), or the subsequent discovery of facts unknown or misrepresented at the time of issuance of the building permit.

(ec) *Individual assessment determinations.* Individual assessments of development impact fees may be established as follows:

- (1) At their option, an applicant for development approval may petition the administrator for an individual assessment determination of development impact fees due for their project in lieu of the fee established on the fee schedules attached hereto and incorporated herein as attachment A and attachment B, whichever fee schedule corresponds to the physical location of the property in question.
- (2) In the event that an applicant elects an individual assessment, the applicant shall submit an individual assessment study. Each individual assessment study shall:
 - a. Be based on relevant and credible information from an accepted standard source of engineering or planning data, or
 - b. Be based on actual, relevant, and credible studies or surveys of facility demand conducted in Dawson County or its region, carried out by qualified engineers or planners pursuant to an accepted methodology; and
 - c. Provide any other written specifications as may be reasonably required by the administrator to substantiate the individual assessment determination.
- (3) The administrator in his or her sole discretion shall determine whether the content of an individual assessment study satisfies the requirements of this article. A negative determination by the administrator may be appealed to the board of commissioners in accordance with the administrative appeals section of this article.
- (4) Any fee approved as an individual assessment determination shall have standing for 180 days following the date of approval. Payment of such an approved individual assessment determination shall constitute full and complete payment of the project's proportionate share of system

improvement as individually levied by ~~Dawson County~~the county, and shall be deemed to be in compliance with the requirements of this article.

- (e) *Fee certification.* Upon application to the administrator, a developer may receive a certification of the development impact fee schedules attached hereto and incorporated herein as attachment A ~~and attachment B~~, or a certified fee for a particular project, as applicable. Such certified schedule or fee shall establish the development impact fee due for a period of 180 days from the date of certification even if new or revised rate schedules are adopted in the interim.

(Ord. of 7-20-2006, § 5; Ord. of 5-9-2009(1), § II)

Sec. 101-62. - Exemptions.

Dawson County recognizes that certain office, retail trade, ~~lodging, service,~~ and industrial development projects provide extraordinary benefit in support of the economic advancement of the county's citizens over and above the access to jobs, goods and services that such uses offer in general. To encourage such development projects, the board of commissioners may consider granting a reduction in the impact fee for such a development project upon the determination and relative to the extent that the business or project represents extraordinary economic development and employment growth of public benefit to Dawson County in accordance with adopted exemption criteria. It is also recognized that the cost of system improvements otherwise foregone through exemption of any impact fee must be funded through revenue sources other than impact fees.

(Ord. of 7-20-2006, § 6)

Sec. 101-63. - Deposit and expenditure of fees.

(a) *Maintenance of funds.*

- (1) All development impact fee funds collected for future expenditure on construction or expansion of facilities pursuant to this article shall be maintained in one or more interest bearing accounts until encumbered or expended. ~~R~~estrictions on the investment of development impact fee funds shall be the same that apply to investment of all such funds generally.
- (2) Separate accounting records shall be maintained for each public facility category of system improvements ~~within each service area wherein fees are collected.~~
- (3) Interest earned on development impact fees shall be considered funds of the account on which it is earned and shall be subject to all restrictions placed on the use of development impact fees under this article. Interest earned each fiscal year shall be distributed among the various funds in proportion to their end-of-year balances on hand.

(b) *Expenditures; restrictions.*

- (1) Expenditures from the impact fee accounts shall be made only for the system improvements in the public facility category ~~of system improvements within the service area~~ for which the development impact fee was assessed and collected.
- (2) Expenditures from the impact fee account for a particular public facility category shall be made only for projects that are listed for that category in the most recently adopted capital improvements element.
 - a. Such expenditures for a specific project may be based on the amount of the actual cost of the project, but ...
 - b. Such expenditures may not exceed the percentage of impact fee eligibility established for such project in the capital improvements element.

c. Expenditures for projects not listed in the capital improvements element may be made only after they have been included in the capital improvements element by amendment adopted by the board of commissioners.

~~(2) Except as provided below, development impact fees shall not be expended for any purpose that does not involve building or expanding system improvements that create additional capacity available to serve new growth and development.~~

(3) Notwithstanding anything to the contrary in this article, the following shall be considered general revenue of ~~Dawson County~~the county and may be expended accordingly.

- a. Impact fees collected to recover the present value of excess capacity in existing system improvements;
- b. Any portion of an impact fee collected as a requirement for expenditures made by ~~Dawson County~~the county for system improvements intended to be funded by such impact fee; and
- c. Any portion of the impact fee ~~but not to exceed three percent of the total~~ collected ~~and allocated by the administrator~~ for administration of the impact fee ~~ordinance program~~ and such additional amount assessed for repayment of the cost of preparing the capital improvements element ~~(CIE) of the comprehensive plan~~or required annual CIE update reports to the state.

(c) *Annual report.*

(1) The administrator shall prepare an annual report to the board of commissioners ~~as part of~~based on the preceding annual audit describing the amount of any development impact fees collected, encumbered, and used during the preceding fiscal year by ~~category of public facility~~ category and service area.

(2) Such annual report shall be prepared following guidelines of the georgia department of community affairs (DCA) and submitted to ~~DCA~~the georgia mountains regional commission in conjunction with the annual update of the ~~capital improvements element~~community work program of the comprehensive plan.

(Ord. of 7-20-2006, § 7)

Sec. 101-64. - Credits.

When eligible, fee payors shall be entitled to a credit against impact fees otherwise due and owing under the circumstances and in the manner set forth in this section.

(1) *Credits; restrictions.*

- a. Except as provided in subsection (1)b of this section, no credit shall be given for construction, contribution, or dedication of any system improvement or funds for system improvements made before the effective date of this article.
- b. If the value of any construction, dedication of land, or contribution of money made by a developer (or his or her predecessor in title or interest) prior to the effective date of ~~the ordinance from which this article is derived~~ for system improvements that are included for impact fee funding in the most recently adopted capital improvements element ~~of the comprehensive land use plan~~, is greater than the impact fee that would otherwise ~~have been~~be paid for the project, then the developer shall be entitled to a credit for such excess construction, dedication, or funding. Notwithstanding anything to the contrary in this article, any credit due under this section shall not constitute a liability of ~~Dawson County~~the county, and shall accrue to the developer to the extent of impact fees assessed for new development for the same category of system improvements ~~within the same service area.~~

- c. In no event shall credit be given for project improvements or for system improvements not included for impact fee funding a the most recently adopted capital improvements element of the comprehensive plan.

(2) *Granting of credits.*

- a. Credit shall be given for the present value of any construction of improvements, contribution or dedication of land, or payment of money by a developer or his or her predecessor in title or interest for system improvements of the same public facilities category and to the same service area for which a development impact fee is imposed, provided that:
 - 1. The system improvement is included for impact fee funding in the most recently adopted capital improvements element of the comprehensive land use plan;
 - 2. The amount of the credit does not exceed the portion of the system improvement's cost that is eligible for impact fee funding as shown in the capital improvements element; and
 - 3. The board of commissioners shall have explicitly approved said improvement, contribution, dedication, or payment and the value thereof prior to its construction dedication or transfer.
- b. The credit allowed pursuant to this section shall not exceed the impact fee due for such system improvement unless a greater credit is authorized under a private agreement executed under the provisions of section 101-~~65~~66.

(3) *Guidelines for credit valuation.* Credits under this section shall be valued using the following guidelines:

- a. For the construction of any system improvements by a developer or his or her predecessor in title or interest and accepted by the county, the developer must present evidence satisfactory to the administrator of the original cost of the improvement, from which present value may be calculated.
- b. For any contribution or dedication of land for system improvements by a developer or his or her predecessor in title or interest and accepted by the county, the original value of the land shall be the same as that attributed to the property by the validated tax appraisal at the time of dedication, from which present value may be calculated.
- c. For any contribution of capital equipment that qualifies as a system improvement by a developer or his or her predecessor in title or interest and accepted by the county, the value shall be the original cost to the developer of the capital equipment or the cost that Dawson County, Georgia, the county would normally pay for such equipment, whichever is less.
- d. For any contribution of money for system improvements from a developer or his or her predecessor in title or interest accepted by the county, the original value of the money shall be the same as that at the time of contribution from which present value may be calculated.
- e. In making a present value calculation, the discount rate used shall be the net of the interest returned on a state of georgia, AA rated or better municipal bond, less average annual inflation, or such other discount rate as the board of commissioners in its sole discretion may deem appropriate.

(4) *Credits: application.*

- a. Credits shall be giver only upon written request of the developer to the administrator. A developer must present written evidence satisfactory to the administrator at or before the time of development impact fee assessment.
- b. The administrator in his or her sole discretion shall review all claims for credits and make determinations regarding the allowance of any claimed credit, and the value of any allowed credit.

c. Any credit approved by the administrator shall be acknowledged in writing by the administrator and calculated at the time of impact fee assessment.

d. Credit denials by the administrator may be appealed to the board of commissioners in accordance with section 101-68, administrative appeals.

(5) *Credits; abandoned building permits.* In the event that an impact fee is paid but the building permit is abandoned, credit shall be given for ~~the present value of~~ the impact fee paid against future impact fees for the same parcel of land upon submission of adequate evidence to the administrator that an impact fee was received by the county, the amount paid, and that the building permit was abandoned.

(Ord. of 7-20-2006, § 8)

Sec. 101-65. - Refunds.

(a) *Eligibility for a refund.*

(1) Upon the request of a fee payor regarding a property on which a development impact fee has been paid, the development impact fee shall be refunded if:

- a. Capacity is available in the public facilities for which the fee was collected but service is permanently denied; or
- b. The development impact fee has not been encumbered or construction has not been commenced within six years after the date the fee was collected.

(2) In determining whether development impact fees have been encumbered, development impact fees shall be considered encumbered on a first-in first-out (FIFO) basis.

(b) *Notice of entitlement to a refund.* When the right to a refund exists due to a failure to encumber the development impact fees, the administrator shall provide written notice of entitlement to a refund to the fee payor who paid the development impact fee at the address shown on the application for development approval or to a successor in interest who has given adequate notice to the administrator of a legal transfer or assignment of the right to entitlement to a refund and who has provided a mailing address. Such notice shall also be published in a newspaper of general circulation in Dawson County within 30 days after the expiration of the six-year period after the date that the development impact fee was collected, and shall contain a heading notice of entitlement to development impact fee refund. No refund shall be made for a period of 30 days from the date of said publication.

(c) *Filing a request for a refund.* All requests for refunds shall be made in writing to the administrator within one year of the time the refund becomes payable or within one year of publication of the notice of entitlement to a refund, whichever is later. Failure to make a claim for a refund within said time period shall result in a waiver of all claims to said funds.

(d) *Payment of refunds.*

(1) All refunds shall be made to the fee payor within 60 days after it is determined by the administrator that a sufficient proof of claim for refund has been made, but no sooner than 30 days after publication of the notice of entitlement to the refund.

(2) A refund shall include a refund of a pro rata share of interest actually earned on the unused or excess impact fee collected.

(3) In no event shall a fee payor be entitled to a refund for impact fees assessed and paid to recover the cost of excess capacity in existing system improvements, for any portion of an impact fee collected as a repayment for expenditures made by ~~Dawson County~~ the county, for system improvements intended to be funded by such impact fee, or for that portion of the fee payment that was assessed for administration of the impact fee ordinance or for recovery of the cost of preparation of the capital improvements element ~~of the comprehensive plan~~.

(Ord. of 7-20-2006, § 9)

Sec. 101-66. - Private contractual agreements.

- (a) *Private agreements: authorized.* Nothing in this article shall prohibit the voluntary mutual approval of a private contractual agreement between the county and any developer or property owner or group of developers and/or property owners in regard to the construction or installation of system improvements, and providing for credits or reimbursement for system improvement costs incurred by a developer, including interproject transfers of credits or providing for reimbursement for project improvement costs which are used or shared by more than one development project, provided that:
- (1) The system improvements are included for impact fee funding in the most recently adopted capital improvements element ~~of the comprehensive plan~~; and
 - (2) The amount of any credit or reimbursement granted shall not exceed the portion of the system improvements cost that is eligible for impact fee funding.
- (b) *Private agreements; provisions.* A private contractual agreement for system improvements may include, but shall not be limited to, provisions ~~which~~that.
- (1) Modify the estimates of impact on public facilities according to the methods and provisions concerning the calculation of impact fees, provided that any such agreement shall allow the county to assess additional development impact fees after the completion of construction according to ~~the fee schedules~~ set forth in this article as attachment A.
 - (2) Permit construction of, dedication of property for, or other in-kind contribution for specific public facilities of the type for which development impact fees would be imposed ~~in the same service area~~ in lieu of or with a credit against applicable development impact fees.
 - (3) Permit a schedule and method of payment appropriate to particular and unique circumstances of a proposed project in lieu of the requirements for payment under this article, provided that acceptable security is posted ensuring payment of the development impact fees. Forms of security that may be acceptable include a cash bond, irrevocable letter of credit from a bank authorized to do business within the state of georgia, a surety bond, or lien or mortgage on lands to be covered by the building permit.
- (c) *Private agreements; procedure.*
- (1) Any private agreement proposed by an applicant pursuant to this section shall be submitted to the administrator for review, negotiation, and submission to the board of commissioners.
 - (2) Any such agreement must be presented to and approved by the ~~Board board of Commissioners commissioners of Dawson County, Georgia~~, prior to the issuance of a building permit.
 - (3) Any such agreement shall provide for execution by mortgages, lien holders, or contract purchasers in addition to the landowner, and shall require the applicant to submit such agreement to the clerk of superior court for recording.

(Ord. of 7-20-2006, § 10)

Sec. 101-67. - Periodic review and amendments.

- (a) *Ordinance amendments.*
- (1) This article may be amended from time to time as deemed appropriate or desirable.
 - (2) Interim amendments to the impact fee schedule regarding the establishment of new land use categories by the administrator under section ~~5-04.3~~101-61.(a)(3) are expressly authorized.
- (b) *Capital improvements element amendment.*

- (1) At least once each year in accordance with the annual review schedule established for the county by the georgia department of community affairs, the board of commissioners shall review and amend the capital improvements element so as to maintain, at a minimum, a schedule of system improvements for each of the subsequent five years.
 - (2) In conducting an annual review of the capital improvements element and calculation of development impact fees, the board of commissioners may determine to further amend the capital improvements element ~~itself.~~ ~~amendments~~ Amendments to the capital improvements element shall be required for any change ~~to the capital improvements element~~ that would:
 - a. Change the ~~funding sources or costs of system improvement projects or change the list or scheduling~~ of system improvement projects by adding, deleting or substantially modifying the projects;
 - b. Redefine or extend growth projections, land development assumptions, or goals or objectives that would affect system improvements proposed in the capital improvements element;
 - c. Add new public facility categories for impact fee funding ~~or modify impact fee service areas;~~
 - d. Change the level of service established for a public facility category ~~or for an impact fee service area;~~ or
 - e. Make any other revisions needed to keep the capital improvements element up to date.
 - (3) The capital improvements element amendment shall be submitted to the georgia mountains regional development center commission for their review in accordance with the *development impact fee compliance requirements* as adopted by the board of community affairs of the state of georgia.
- (c) *Continuation of validity.* Failure of the board of commissioners to undertake an annual review of the capital improvement element shall result in the continued use and application of the latest adopted development impact fee schedule and other data. The failure to annually review the capital improvements element shall not invalidate this article.

(Ord. of 7-20-2006, § 11)

Sec. 101-68. - Administrative appeals.

- (a) *Eligibility to file an appeal.* Only applicants or fee payors who have already been assessed an impact fee by the county or who have already received a written determination of individual assessment refund or credit amount shall be entitled to an appeal.
- (b) *Appeals process.*
 - (1) The aggrieved applicant or fee payor (hereinafter the "appellant") must file a written appeal with the administrator within 15 days of the decision or receipt of written determination from which the appeal is taken.
 - (2) Such written appeal shall constitute an application for relief shall state the basis for the appeal and the relief sought, and shall include:
 - a. The name and address of the appellant;
 - b. The location of the affected property;
 - c. A copy of any applicable written decision or determination made by the administrator from which the appeal is taken.
 - (3) Within 15 days after receipt of the appeal, the administrator shall make a written final decision with respect to the appeal. ~~such~~ Such decision ~~to shall~~ be of sufficient content to set forth the basis for the determination.

- (4) Appeals from the final decision of the administrator shall be made to the board of commissioners within 30 days of receipt by the appellant of the administrator's decision. Delivery by hand or certified mail to or posting upon the property at, the address given by the appellant in the application for relief shall constitute ~~receipt~~ "receipt" by the ~~appellant~~ "appellant" under this provision.
 - (5) The board of commissioners shall thereafter hold a hearing on the appeal within 30 days, provided that at least two weeks written notice thereof can be given to the appellant. The board of commissioners shall decide the issue within a reasonable time following the hearing, but in no case more than ~~45~~ 30 days following the hearing unless the appellant agrees to an extension to a later date. Any party making an appeal shall have the right to appear at the hearing to present evidence and may be represented by counsel.
- (c) *Payment of impact fee during appeal.*
- (1) The filing of an appeal shall not stay the assessment or collection of a development impact fee as a condition to the issuance of development approval.
 - (2) A developer may pay a development impact fee under protest to obtain a building permit or development approval and by making such payment shall not be estopped from exercising ~~this~~ his or her right of appeal or receiving a refund of any amount deemed to have been collected in excess.

(Ord. of 7-20-2006, § 12)

Sec. 101-69. - Enforcement and penalties.

(a) *Enforcement authority.*

- (1) The enforcement of this article shall be the responsibility of the administrator and such personnel as the administrator may designate from time to time.
- (2) The administrator shall have the right to inspect the lands affected by this article and shall have the right to issue a written notice, a stop work order, or citation for violations as the administrator in his or her sole determination may deem appropriate to the circumstances. ~~refusal~~ Refusal of written notice of violation, stop work order, or citation under this article shall constitute legal notice of service. The citation shall be in the form of a written official notice issued in person or by certified mail to the owner of the property or to his or her agent, or to the person performing the work. The receipt of a citation shall require that corrective action be taken within 30 days unless otherwise extended at the discretion of the administrator.
- (3) The administrator may suspend or revoke any building permit or withhold the issuance of other development approvals if the provisions of this article have been violated by the developer or the owner or their assigns.

(b) *Violations.*

- (1) Knowingly furnishing false information on any matter relating to the administration of an ordinance shall constitute an actionable violation.
- (2) Proceeding with construction of a project that is not consistent with the ~~project a~~ impact fee assessment, such as the use category claimed, or units of development indicated, shall constitute ~~as an~~ actionable violation.
- (3) Failure to take corrective action following the receipt of a citation shall constitute an actionable violation.
- (4) A violation of this article shall be a misdemeanor punishable according to law, including the general penalty provisions of the *dawson county code of ordinances*. In addition to or in lieu of criminal prosecution, the board of commissioners shall have the power to sue in law or equity for relief in civil court to enforce this article, including recourse to such civil and criminal remedies in

law and equity as may be necessary to ensure compliance with the provisions of this article, and including but not limited to injunctive relief to enjoin and restrain any person from violating the provisions of this article, and to recover such damages as may be incurred by the implementation of specific corrective actions.

(Ord. of 7-20-2006, § 13)

Sec. 101-70. - Incorporation by reference of Georgia laws.

It is the intent of the board of commissioners that the development impact fee ordinance ~~of Dawson County, Georgia,~~ comply with the terms and provisions of the *georgia development impact fee act* (O.C.G.A. § 36-71-1 et seq.) as amended. To the extent that any provision of this article is inconsistent with the provisions of said act, the latter shall control. Furthermore, to the extent that this article is silent as to any provision of said chapter that is otherwise made mandatory by said chapter, such provision shall control and shall be binding upon the county.

(Ord. of 7-20-2006, § 14.03)

Sec. 101-71. - Effective date.

This article or any amendments thereto shall take effect on adoption.

(Ord. of 7-20-2006, § 14.04)

Attachment A
Impact Fee Schedule

TO BE INSERTED

Georgia, Dawson County

**AN ORDINANCE
AMENDING THE DEVELOPMENT IMPACT FEE ORDINANCE
OF THE DAWSON COUNTY, GEORGIA**

WHEREAS, the Board of Commissioners of Dawson County, Georgia, under the Constitution and Laws of the State of Georgia is empowered by virtue of its police power to regulate the health, safety and welfare of the citizens of Dawson County; and

WHEREAS, the Board of Commissioners of Dawson County, Georgia, enacted a Development Impact Fee Ordinance of Dawson County, Georgia, on July 20, 2006, and last amended it on May 9, 2009, upon which Article III, Development Impact Fees, of the Dawson County Code of Ordinances is derived; and

WHEREAS, it is deemed by the Board of Commissioners of Dawson County, Georgia, that an amendment to the Development Impact Fees Article of the Dawson County Code of Ordinances is of substantial benefit to the public and in the promotion of the best interests and general welfare of its citizens;

NOW THEREFORE, IT SHALL BE AND IS HEREBY ORDAINED by the Board of Commissioners of Dawson County, Georgia, that Article III, Development Impact Fees, of the Official Code of Dawson County, Georgia, shall be and is hereby amended as follows:

Section 1: To delete the Development Impact Fee Ordinance of Dawson County, Georgia, codified in the Dawson County Code of Ordinances under Article III, Development Impact Fees, and to replace it in its entirety with a new Article III, Development Impact Fees, as attached hereto.

Section 2: To delete Attachments A, B and C of the Development Impact Fee Ordinance of Dawson County, Georgia, codified in the Dawson County Code of Ordinances as attachments to Article III, Development Impact Fees, and to replace them with a new Attachment A, as attached hereto, in its entirety.

Section 3: The foregoing amendment of the Development Impact Fee Ordinance of Dawson County, Georgia, shall become effective immediately upon adoption of this Ordinance.

Section 4: All Ordinances or resolutions in conflict herewith shall be and are hereby repealed to the extent of the conflict.

Adopted this ____ day of _____, 2018.

BY: _____
Billy Thurmond, Chairman

ATTEST: _____
Kristen Cloud, County Clerk



Capital Improvements Element



Dawson County Impact Fee Program

Including the following
public facility categories:

Library Services
Parks and Recreation
Fire Protection
Law Enforcement
Road Improvements

Adopted: July 19, 2018

ROSS+associates

urban planning & plan implementation



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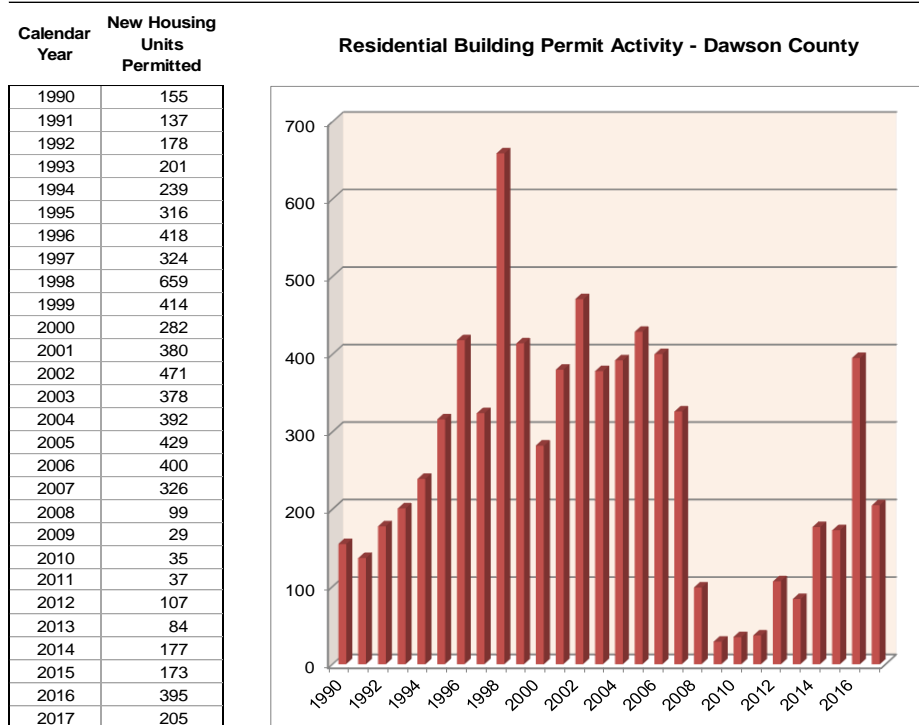
Introduction

■ Looking Ahead

Forecasts indicate major growth ahead for Dawson County as people continue to move up the GA 400 corridor, propelled by growth in the Atlanta Metro Area, and attracted to favorable housing prices, a great school system, and avoiding the increasingly crowded, traffic congested Forsyth County. Over the next 22 years to 2040, it is expected that about one-half of the people that will be living in Dawson County and the housing they occupy are not here today. This equates to a doubling of the population and housing supply over 2017—2.04 times as many people and 1.95 times as many housing units as today (accompanied with an increase in average household size).

This is not as unprecedented as it seems. Looking back over the past 22 years, since 1995 the county's population has more than doubled, from 11,888 to 24,517—a 52% increase—in spite of the housing market crash of 2008 and the ensuing Great Recession.

Building permit data tell the story. Going back to 1990, the county was on a clear upswing in development, trending higher and higher overall, slipping a bit in 2006, and then plummeting with the nationwide housing market crash.



Source: US Bureau of the Census, annual building permit data, 1990-2015; Dawson County 2016-2017.

Recovery from the crash was slow but steady—even outpacing the rebound in Gainesville-Hall County and the Atlanta Metro Area on an annual percent increase basis. Most recently, the county's housing industry has regained its footing and permits are clearly on the rise.

Though not as robust as population growth, nonresidential growth forecasts indicate an almost doubling in the number of private-sector jobs with a 41% growth and a 1.7 multiplier. (These numbers exclude government, construction and agricultural workers, since they are not assessed impact fees.) According to Woods & Poole Economics, Inc., the county will see its greatest

increase in retail trade, followed by service industries, insurance/finance and real estate, and health care.

What this means is that Dawson County 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 attracts new growth and investment tomorrow and that the population enjoys today.

■ Impact Fees

Impact fees present a potential revenue source in the on-going search for public facilities funding, which this report examines.

We identify the current levels of service provided throughout the county and the desired levels of service for the future in order to quantify the capital facilities needed to achieve the Dawson County's goals for the future. Based on that analysis, calculations have been carried out in order to identify what portion of future capital facilities could be funded through impact fee collections.

In this report capital costs have been examined for six public facility categories: library services, parks & recreation, public safety (including fire protection, emergency management/911 communications, and law enforcement), and road improvements. Based on plans of the County and projections of future capital investment needs, the portion of future capital costs that could be met through impact fees has been calculated. In short, impact fees could be used to fund a large portion of the capital costs in these public facility categories, and at the desired Level of Service standards, over the next 22 years to 2040.

Impact Fees Authorized

Under State law, the County can collect money from new development based on that development's proportionate share—the 'fair share'—of the cost to provide the facilities it needs. The State law allows impact fees to be collected in the categories of libraries, public safety, parks, and roads, among others. Ultimately, and importantly, the services provided in the public facility categories for which impact fees are being charged must be the same for both the existing community and future growth.

Impact fees are authorized in Georgia under Code Section 37-71, the *Georgia Development Impact Fee Act* (DIFA), and are administered by the Georgia Department of Community Affairs (DCA) under Chapter 110-12-2, *Development Impact Fee Compliance Requirements*. Impact fees are a form of revenue authorized by the State, and strictly defined and regulated through State law. The provisions of the DIFA are extensive, in order to assure that new development pays no more than its fair share of the costs and that impact fees are not used to solve existing service deficiencies.

Impact Fee Documentation

One document required for the collection of impact fees is called the Capital Improvements Element (CIE), and is adopted as a chapter, or 'element', of the County's Comprehensive Plan. As defined by the Georgia Development Impact Fee Act (DIFA), the CIE must include certain calculations and information, and those are included in this report along with additional information regarding the amount that could be charged in an impact fee program. The calculations and information, repeated (as applicable) for each public facility category for which an impact fee will be charged, are:

- a **projection of needs** for the planning period of the adopted Comprehensive Plan;
- 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 will be provided;
- a **schedule of improvements** listing impact fee related projects and costs for the planning period of the adopted Comprehensive Plan;
- a description of **funding sources** for the planning period of the adopted Comprehensive Plan;

■ Updating the Impact Fee Program

Dawson County adopted its impact fee program in 2006, including its initial Capital Improvements Element, Impact Fee Ordinance and Impact Fee Schedule. Impact fee collections were suspended in 2009 in response to the worsening economic conditions brought on by the Great Recession. This Methodology Report updates the County's documentation, including the recognition of current prices and costs for capital equipment and facilities, and extends the horizon of the program to 2040.

Adoption of a new CIE would therefore update the County's program that has been in place for many years.

The following table shows the facility categories that are eligible for impact fee funding under Georgia law and that are included in the County's current impact fee program. The service area for each public facility category—that is, the geographical area served by the facility category—is also given, along with the basis for the standard adopted as the Level of Service to be delivered for each facility category. All the listed categories are considered in this report.

Table 1: Overview of Impact Fee Program - Facilities

	Eligible Facilities	Service Area	Level of Service Standard Based on ...	Historic Funding Sources
Library Services	Library facilities including collection materials	Countywide	Square footage and number of collection materials per dwelling unit	General Fund, State Grants, impact fees
Parks and Recreation	Park acres, recreation components	Countywide	Number of acres and recreation components per dwelling unit	General Fund, SPLOST and impact fees
Fire Protection	Fire stations, fire trucks & auxiliary vehicles	Countywide	Square footage and number of vehicles per day-night population	General Fund, SPLOST and impact fees
Law Enforcement	Sheriff's administration space and inmate detention	Countywide	Square footage of facilities per day-night population	General Fund, SPLOST and impact fees
Road Improvements	Road projects providing new trip capacity	Countywide	LOS "D" for entire road network	General Fund, SPLOST and impact fees

Terms used in Table 1:

Eligible Facilities under the State Act are limited to capital items having a life expectancy of at least 10 years, such as land, buildings and other facilities, and major rolling stock (such as fire trucks). Impact fees cannot be used for the maintenance, supplies, personnel salaries, or other operational costs, or for short-term capital items such as computers, furniture or automobiles. None of these costs are included in the impact fee system.

Service Areas are the geographic areas that the facilities serve, and the areas within which the impact fee can be collected. Monies collected in a service area for a particular type of facility may only be spent for that purpose, and only for projects that serve that service area.

Level of Service Standards are critical to determining new development's fair share of the costs. The same standards must be applied to existing development as well as new to assure that each is paying only for the facilities that serve it. New development cannot be required to pay for facilities at a higher standard than that available to existing residents and businesses, nor to subsidize existing facility deficiencies.

■ Editorial Conventions

This report observes the following conventions:

- The capitalized word 'County' applies to the government of Dawson County, the Board of Commissioners or any of its departments or officials, as appropriate to the context. An example is "the County has adopted an impact fee ordinance".
- The lower case word 'county' refers to the geographical area of Dawson County, as in "the population of the county has grown".
- The same conventions are applied to the words 'City' and 'city', 'State' and 'state'.
- 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.



Forecasts

Extensive growth and development is forecast for Dawson County over the coming 22 years to 2040 as expansion of the Atlanta Metro Area washes over Forsyth County into Dawson—a process that has already begun.



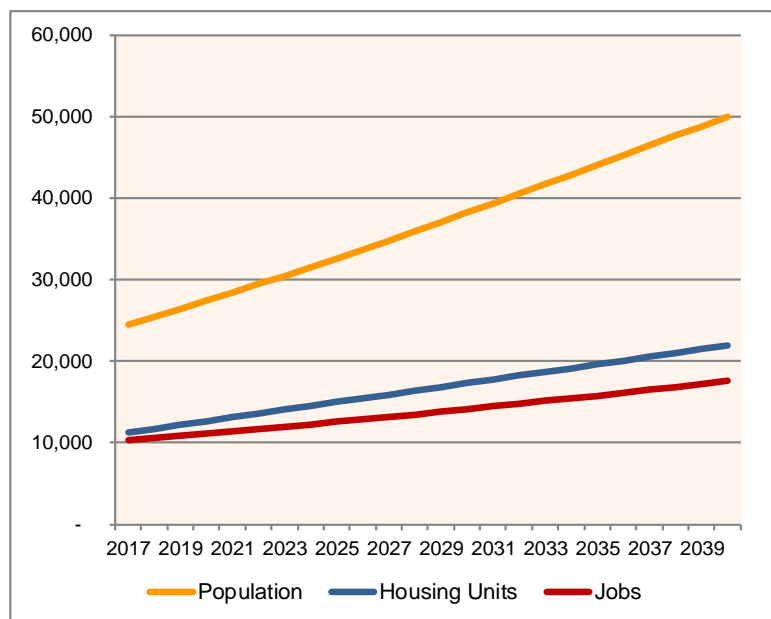
Forecasts

Population projections reflect this massive growth which is expected over the next 22 years. Based on the county's rebound from the Great Recession and anticipated continuing growth in the housing market, the ultimate population forecast for 2040 is 50,000 people—a doubling of the number of people in the county today.

The numbers in the 'jobs' column are private sector, building occupying employment figures and exclude what are referred to as 'non-building related' jobs. 'Non-building related' jobs are those that do not normally require issuance of a building permit, and thus would not be assessed an impact fee. Such jobs include any employment that is considered to be transitory in nature, such as those working on construction sites, or are strictly land-based such as farming and other agricultural workers. In addition, the number of workers employed by governmental entities (city, county, state and federal) is excluded because governments are exempt from impact fees.

Table 2: Forecasts of Future Growth

	Population	Housing Units	Jobs
2017	24,517	11,262	10,290
2018	25,453	11,726	10,578
2019	26,412	12,190	10,857
2020	27,394	12,658	11,136
2021	28,396	13,127	11,414
2022	29,418	13,592	11,697
2023	30,459	14,052	11,981
2024	31,519	14,514	12,270
2025	32,595	14,975	12,567
2026	33,687	15,439	12,868
2027	34,794	15,905	13,175
2028	35,915	16,372	13,485
2029	37,048	16,838	13,802
2030	38,193	17,300	14,119
2031	39,348	17,763	14,442
2032	40,512	18,224	14,774
2033	41,684	18,683	15,106
2034	42,863	19,141	15,441
2035	44,047	19,597	15,780
2036	45,235	20,058	16,128
2037	46,425	20,526	16,478
2038	47,617	21,004	16,831
2039	48,809	21,490	17,196
2040	50,000	21,981	17,560



	Population	Housing Units	Jobs
2017	24,517	11,262	10,290
2040	50,000	21,981	17,560
Increase	25,483	10,719	7,270
Percent	51.0%	48.8%	41.4%

By 2040, about a half (51%) of the population in the county will have been generated by new growth; virtually the same is true for the number of housing units at 49%. In other words, population and housing units in 2040 will be about 2 times the numbers today (2.04 and 1.95 times, respectively). Growth in private sector jobs will comprise over 40% of all such jobs in the county today (somewhat less than doubling at 1.7 times 2017).

A much more extensive socioeconomic analysis and description of the growth projections is contained in the Appendix: Future Growth.

Library Services

■ Introduction

The Dawson County Library System provides library services through a central library facility in Dawsonville and a small satellite branch on Liberty Drive (east of Ga 400). Together, the two facilities contain a total of 14,700 square feet and have a current collection of almost 43,000 materials.



The Dawson County Library is part of the Chestatee Regional Library System and is maintained by financial contributions from Dawson County. The library provides services to all residents of Dawson County through a variety of information and materials, facilities and programs. The library system serves all persons on an equal basis in meeting their educational, recreational, civic, economic and spiritual needs.

Demand for library services is almost exclusively related to the county's resident population. Businesses make some use of public libraries for research purposes, but the use is incidental compared to that of the families and individuals who live in the county. Thus, a library services system impact fee is limited to future residential growth.

■ Service Area

Materials, facilities and services of the Dawson County library system are equally available to the county's population. The entire county is therefore considered a single service district for library services. An improvement in any part of the county increases service to all parts of the county to some extent.

■ Level of Service

The year 2017 Level of Service (LOS) is determined by an inventory of the existing library facilities and collection materials, as shown in Table 3.

Table 3: Inventory of Library Facilities

Facility	Gross Floor Area in Square Feet	Collection Materials
Dawson County Library*	14,700	42,908

*Includes the main branch and the satellite facility.

Level of service calculations, shown in Table 4 below, determine that the facilities provide slightly more than 3.8 collection materials and 1.3 square feet of library space per dwelling unit to serve the current population.

Table 4: Current Level of Service Calculation

Facility	Current Service Population	Current Level of Service
Existing Square Feet	Number of Housing Units (2017)	Square Feet of Floor Area per Housing Unit
14,700	11,262	1.3053
Existing Collection Materials	Number of Housing Units (2017)	Collection Materials per Housing Unit
42,908	11,262	3.8100

■ **Forecasts for Service Area**

Future Demand

The County adopted a Level of Service for library facilities based on the current floor area of facility space, and the current number of collection materials, per dwelling unit. In Table 5, the Level of Service figures are used to calculate future demand in square feet and collection materials between 2017 and 2040. The additional number of forecasted dwelling units to the year 2040 is multiplied by the Level of Service to produce the future demand figures. Future growth will demand almost 14,000 additional square feet of library space by the year 2040 in order to maintain the current Level of Service for all county residents, both existing and future. In the same way, a net increase of almost 41,000 collection materials will need to be added.

Table 5: Future Demand Calculation

Current Level of Service	Service Population Growth	New Growth Demand
Square Feet of Floor Area per Housing Unit	Number of New Housing Units (2017-40)	Square Feet of New Floor Area Needed
1.3053	10,719	13,991
Collection Materials per Housing Unit	Number of New Housing Units (2017-40)	Collection Materials Needed
3.8100	10,719	40,839

Table 6 presents the expected facility demand in an annual format. The table shows a future project roughly in pace with the anticipated growth in dwelling units (assuming that construction of a new library branch should begin when about one-half the service demand is reached). Alternately, an expansion of the current main library could be considered, and/or several smaller new branch libraries in various locations around the county. In whatever future configuration, it is the addition of 13,991 square feet that is impact fee eligible.

Table 6: Future Library Facility Projects

Year	New Dwelling Units	Running Total: SF Demanded	Project	Square Footage
2017	0			
2018	464	606		
2019	464	1,212		
2020	468	1,823		
2021	469	2,435		
2022	465	3,042		
2023	460	3,642		
2024	462	4,245		
2025	461	4,847		
2026	464	5,453	New Branch Library	13,991
2027	466	6,061		
2028	467	6,671		
2029	466	7,279		
2030	462	7,882		
2031	463	8,486		
2032	461	9,088		
2033	459	9,687		
2034	458	10,285		
2035	456	10,880		
2036	461	11,482		
2037	468	12,093		
2038	478	12,717		
2039	486	13,351		
2040	491	13,992		
Total	10,719			13,991

Table 7 presents the figures for collection material demand. Materials demanded by new growth are calculated in the first columns by multiplying the Level of Service standard (from Table 5) times the net new dwelling units each year (from Table 2). Thus the 'New Materials Needed (annual)' column represents the number of materials that must be purchased in order to meet new growth's demand in each year. The 'Running Total' column shows the accumulated number of new collection materials that will meet the needs of future residential growth in the county.

However, the Library System discards a few of its collection materials each year as they become worn out, disfigured, broken or out of date. To maintain the collection, these materials need to be replaced with new materials. Since these materials replenish the overall collection, the responsibility for these replacements falls to the current residents and not to new growth.

Library Services

Over the past several years the discard rate has averaged 0.524% of all materials in the collection. As the collection grows in the future, this discard rate will continue relative to the new materials being acquired. By including the discarded materials for replacement each year, the resulting 'total materials needed (annual)' column reflects the total number of volumes required annually to maintain the LOS once these non-impact fee eligible volumes are discarded. Thus, the new materials that will be needed each year will meet both the demand of new growth and the replenishment of the current collection. A total of 41,048 collection materials will need to be purchased to maintain the Level of Service for new and existing development and to account for discarded volumes.



Table 7: Future Collection Materials Needed

Year	New Growth Demand			Plus Discarded Materials	Total Materials Needed (annual)
	New Dwelling Units	New Materials Needed (annual)	Running Total		
2017	0	0			
2018	464	1,768	1,768	9	1,777
2019	464	1,768	3,536	9	1,777
2020	468	1,783	5,319	9	1,792
2021	469	1,787	7,106	9	1,796
2022	465	1,772	8,878	9	1,781
2023	460	1,753	10,631	9	1,762
2024	462	1,760	12,391	9	1,769
2025	461	1,756	14,147	9	1,765
2026	464	1,768	15,915	9	1,777
2027	466	1,775	17,690	9	1,784
2028	467	1,779	19,469	9	1,788
2029	466	1,775	21,244	9	1,784
2030	462	1,760	23,004	9	1,769
2031	463	1,764	24,768	9	1,773
2032	461	1,756	26,524	9	1,765
2033	459	1,749	28,273	9	1,758
2034	458	1,745	30,018	9	1,754
2035	456	1,737	31,755	9	1,746
2036	461	1,756	33,511	9	1,765
2037	468	1,783	35,294	9	1,792
2038	478	1,821	37,115	10	1,831
2039	486	1,852	38,967	10	1,862
2040	491	1,871	40,838	10	1,881
Total	10,719	40,838		210	41,048

Note: Discard rate = 0.524%

■ Future Costs

New Library Space

The building floor area needed to serve new growth identified in Table 6 is used to calculate the future cost to meet service demand, as shown in Table 8. The costs are shown in current dollars, and then adjusted to reflect the Net Present Value based on the year in which the expenditure is anticipated. For facility construction, the estimated current cost of construction is adjusted using the BCI (building construction cost index), and then reduced by the Discount Rate to determine the Net Present Value.¹

Table 8: Facility Costs to Meet Future Demand

Year	Project	Square Footage	Cost (2017 Dollars)*	% for New Growth	Total New Growth Cost (NPV)**
2026	New Branch Library	13,991	\$ 4,365,192	100%	\$ 4,716,121
Total		13,991	\$ 4,365,192	100%	\$ 4,716,121

* Project cost based on \$312 per square foot, *Green Building Square Foot Costbook*, 2017 Edition, published by BNI Building News.

** Net Present Value = 2017 cost estimate inflated to target year using the Building Cost Index (BCI), reduced to NPV using the Discount Rate.

New Collection Materials

The new collection materials needed to serve new growth and to offset the discard rate, identified on Table 7, are used to calculate the future cost to meet service demand, as shown in Table 10.

The average cost of a collection material is based on the overall value of all of the materials in the current collection. The inventory of the current collection is shown on Table 9 by type of material, number of materials, the average cost to acquire a volume in each category, and the total value of all materials in each category. Overall, the system's collection of 42,908 materials has a current (replacement) value of almost \$940,200. Dividing one by the other, and assuming the relative ratios will persist into the future, the average material in the collection is almost \$22.



¹ For more information on the cost inflator factor and net present value, see the 'Cost Adjustments and Credits' chapter of this report.

Table 9: Value of Collection Materials - 2017

Collection Materials	Number of Volumes	Avg Value per Volume	Total Value
Adult fiction books	1,220	\$ 23.33	\$ 28,462.60
Adult nonfiction books	10,431	\$ 24.09	\$ 251,282.79
Juvenile books	9,376	\$ 16.49	\$ 154,610.24
Easy books	7,638	\$ 15.73	\$ 120,145.74
EZ books	916	\$ 13.03	\$ 11,935.48
Magazines	1,108	\$ 22.00	\$ 24,376.00
Realia items	98	\$ 41.05	\$ 4,022.90
Large print books	1,616	\$ 27.17	\$ 43,906.72
Young adult books	2,585	\$ 16.17	\$ 41,799.45
Videogames	148	\$ 24.83	\$ 3,674.84
Music CDs	334	\$ 13.95	\$ 4,659.30
DVDs	3,129	\$ 22.84	\$ 71,466.36
Audiobooks	2,481	\$ 36.62	\$ 90,854.22
Ref/Georgianna	1,828	\$ 48.67	\$ 88,968.76
Total	42,908		\$ 940,165.40
	Overall Average per Volume		\$ 21.91

This average cost-per-material from Table 9 is used in Table 10 to calculate the total cost each year to acquire the needed number of materials (from Table 7). The costs are shown in current dollars, and then adjusted to reflect the Net Present Value based on the year in which the expenditure is anticipated. For the acquisition of collection materials, the current cost is adjusted to reflect the CPI (consumer price index) inflation factor, and then reduced by the Net Discount Rate to determine the Net Present Value.



In Table 10, the number of books needed each year is taken from Table 7. The total cost each year (in current 2017 dollars) is produced by multiplying the number of collection materials times the average per-volume cost calculated in Table 9. The percentage of the cost attributable to new growth in each year is based on the percentage of total volumes demanded that are attributable to new growth's demand (i.e., excluding the volumes needed to replace the discarded volumes).

This 'New Growth Cost (2017 \$)' is converted to Net Present Value as described above, using the CPI inflation rate to the future year indicated, and then reducing that figure using the Net Discount Rate back to present value of the future cost.

Table 10: Collection Material Costs to Meet Future Demand

Year	Total Materials Needed (annual)	Total Cost (2017 Dollars)	% for New Growth	New Growth Cost (2017 \$)	Net Present Value
2018	1,777	\$ 38,934.07	99.49%	\$ 38,736.88	\$ 39,114.61
2019	1,777	\$ 38,934.07	99.49%	\$ 38,736.88	\$ 39,496.02
2020	1,792	\$ 39,262.72	99.50%	\$ 39,065.53	\$ 40,219.50
2021	1,796	\$ 39,350.36	99.50%	\$ 39,153.17	\$ 40,702.80
2022	1,781	\$ 39,021.71	99.49%	\$ 38,824.52	\$ 40,754.71
2023	1,762	\$ 38,605.42	99.49%	\$ 38,408.23	\$ 40,710.86
2024	1,769	\$ 38,758.79	99.49%	\$ 38,561.60	\$ 41,271.99
2025	1,765	\$ 38,671.15	99.49%	\$ 38,473.96	\$ 41,579.72
2026	1,777	\$ 38,934.07	99.49%	\$ 38,736.88	\$ 42,272.08
2027	1,784	\$ 39,087.44	99.50%	\$ 38,890.25	\$ 42,853.28
2028	1,788	\$ 39,175.08	99.50%	\$ 38,977.89	\$ 43,368.66
2029	1,784	\$ 39,087.44	99.50%	\$ 38,890.25	\$ 43,693.09
2030	1,769	\$ 38,758.79	99.49%	\$ 38,561.60	\$ 43,746.30
2031	1,773	\$ 38,846.43	99.49%	\$ 38,649.24	\$ 44,273.27
2032	1,765	\$ 38,671.15	99.49%	\$ 38,473.96	\$ 44,502.24
2033	1,758	\$ 38,517.78	99.49%	\$ 38,320.59	\$ 44,757.06
2034	1,754	\$ 38,430.14	99.49%	\$ 38,232.95	\$ 45,090.13
2035	1,746	\$ 38,254.86	99.48%	\$ 38,057.67	\$ 45,321.07
2036	1,765	\$ 38,671.15	99.49%	\$ 38,473.96	\$ 46,263.58
2037	1,792	\$ 39,262.72	99.50%	\$ 39,065.53	\$ 47,432.98
2038	1,831	\$ 40,117.21	99.45%	\$ 39,898.11	\$ 48,916.27
2039	1,862	\$ 40,796.42	99.46%	\$ 40,577.32	\$ 50,234.11
2040	1,881	\$ 41,212.71	99.47%	\$ 40,993.61	\$ 51,244.33
Total	41,048	\$ 899,361.68		\$ 894,760.58	\$ 1,007,818.63

Parks and Recreation Facilities

■ Introduction

Public recreational opportunities are available in Dawson County through a number of parks facilities and programs operated by the County. Demand for recreational facilities is almost exclusively related to the county's resident population. Businesses make some incidental use of public parks for office events, company softball leagues, etc., but the use is minimal compared to that of the families and individuals who live in the county. Thus, the parks and recreation impact fee is limited to future residential growth. The County maintains and operates four parks.

Rock Creek Sports Complex



River Park



Veterans Memorial Park



War Hill Park



■ Service Area

Parks and recreational facilities are made available to the county's population without regard to the political jurisdiction within which the resident lives. In addition, the facilities are provided equally to all residents, and often used on the basis of the programs available, as opposed to proximity of the facility. For instance, children active in the little leagues play games at various locations throughout the county, based on scheduling rather than geography. Other programs are located only at certain centralized facilities, to which any Dawson County resident can come. As a general rule, parks facilities are located throughout the county, and future facilities will continue to be located around the county so that all residents will have recreational opportunities available on an equal basis. Thus, the entire county is considered a single service area for parks & recreation.

■ Level of Service

The Level of Service (LOS) that the County’s parks and recreation components provide is viewed from two perspectives: the LOS that is provided by the current facilities to the current population, and the LOS adopted as part of the County’s Recreation Master Plan.

Table 11: Current Inventory of Parks and Recreation Components

Facility	Park Acreage	Recreation Component	Current Inventory
Rock Creek Park	50.8	Total Park Acres	202.9
Veterans Memorial Park	40.8	Baseball/Softball Fields	15
River Park	3.3	Basketball Courts (outdoor)	2
War Hill Park	108.0	Multi-Purpose Fields	4
Total Acres	202.9	Picnic Pavilions	4
		Playgrounds	3
		Restroom/Concession	3
		Swimming Pools	1
		Tennis Courts	6
		Buildings:*	
		Gymnasium	17,000
		Maintenance Sheds	4,200
		Office/Concession	2,500
		Recreation Center	36,000
		Senior Rec Center	5,000
		Maintenance Yards**	0.25
		Walking Trails***	1.90
		Parking Spaces	1,255

Footnotes:

* Floor area in square feet. Includes 1 indoor regulation basketball court at the Veterans Memorial Park gym and 2 at the Rock Creek Recreation Center.

** Total acres for 2 yards.

*** Trail miles.

Current Level of Service

Table 12 below provides the current Level of Service in park acreage and facilities per population, converts this to the Level of Service per the number of housing units occupied by that population, and then expresses the Level of Service per housing unit (since impact fees are assessed per housing unit when building permits are issued, not population).

For all facilities, the current Level of Service standards are expressed in terms of the number of people each recreation component serves.

To determine the current LOS, the number of people served by each component is calculated using the current inventory for the component divided into the current population. These LOS 'per population' standards are then re-calculated as the number of housing units served by each component based on the county's number of people living in an average household (the average household size). Since impact fees are assessed at the time a building permit is issued (and the impact fee will be applied only to residential uses), the LOS then must be converted to a 'per housing unit' basis.

Table 12 shows how the current Level of Service for each recreation component is converted to a 'per housing unit' basis. To do this, the current LOS shown in the middle columns of 1 per a 'certain number of' housing units for each component is converted to the LOS per housing unit by dividing the number into '1', which produces the number of components serving one housing unit'.

Table 12: Current Level of Service Calculations

Component Type	Current Level of Service*	Level of Service per "X" Housing Units**	Level of Service per Each Housing Unit***
Total Park Acres	1 per 121 population =	1 per 55 Housing Units =	0.018182 for each Housing Unit
Baseball/Softball Fields	1 per 1,634 population =	1 per 751 Housing Units =	0.001332 for each Housing Unit
Basketball Courts (outdoor)	1 per 12,259 population =	1 per 5,631 Housing Units =	0.000178 for each Housing Unit
Multi-Purpose Fields	1 per 6,129 population =	1 per 2,816 Housing Units =	0.000355 for each Housing Unit
Picnic Pavilions	1 per 6,129 population =	1 per 2,816 Housing Units =	0.000355 for each Housing Unit
Playgrounds	1 per 8,172 population =	1 per 3,754 Housing Units =	0.000266 for each Housing Unit
Swimming Pools	1 per 24,517 population =	1 per 11,262 Housing Units =	0.000089 for each Housing Unit
Tennis Courts	1 per 4,086 population =	1 per 1,877 Housing Units =	0.000533 for each Housing Unit
Buildings:			
Gymnasium	1 sq ft per 1,442 population =	1 sq ft per 0.662 Housing Units =	1.509501 for each Housing Unit
Maintenance Sheds	1 sq ft per 5,837 population =	1 sq ft per 2.681 Housing Units =	0.372936 for each Housing Unit
Office/Concession	1 sq ft per 9,807 population =	1 sq ft per 4.505 Housing Units =	0.221985 for each Housing Unit
Recreation Center	1 sq ft per 0.681 population =	1 sq ft per 0.313 Housing Units =	3.196590 for each Housing Unit
Restroom/Concession	1 per 8,172 population =	1 per 3,754 Housing Units =	0.000266 for each Housing Unit
Senior Rec Center	1 sq ft per 4,903 population =	1 sq ft per 2.252 Housing Units =	0.443971 for each Housing Unit
Maintenance Yard acres	1 acre per 98,068 population =	1 acre per 45,048 Housing Units =	0.000022 for each Housing Unit
Walking Trail miles	1 mile per 12,904 population =	1 mile per 5,927 Housing Units =	0.000169 for each Housing Unit
Parking Spaces	1 space per 19,535 population =	1 space per 8,974 Housing Units =	0.111437 for each Housing Unit

* LOS is based on the current inventory divided by the current population.

** Converted using average population per housing unit in 2017.

*** "1" divided by the number of housing units for each component under 'Level of Service per "X" Housing Units' column.

By way of example, the current LOS for basketball courts is 1 court per 12,259 people. That number—12,259—is divided by the 2017 average household size to convert 'people' into 'housing units'. The result is the converted standard of 1 court per 5,631 housing units. By dividing the component (1) by the number of housing units it serves results in the portion of a basketball court that serves 1 housing unit (0.000178).

Master Plan Level of Service

In 2012 the County adopted a Master Plan for all recreation facilities operated by the County. Those LOS standards are shown in Table 13. By-and-large, the current LOS standards compare generally well to the adopted LOS standards, with some exceptions (such as baseball and softball fields, which far outnumber the adopted standard). In many cases, types of recreation components are not the same between the current inventory and the Master Plan facilities. In particular, adopted standards for various building types cannot be compared to the current LOS standards.

Table 13: Adopted Level of Service Calculations

Component Type	Adopted Level of Service*	Level of Service per "X" Housing Units	Level of Service per Each Housing Unit
Total Park Acres	1 per 100 population =	1 per 46 Housing Units =	0.021739 for each Housing Unit
Baseball/Softball Fields	1 per 5,000 population =	1 per 2,297 Housing Units =	0.000435 for each Housing Unit
Basketball Courts (outdoor)	1 per 8,000 population =	1 per 3,675 Housing Units =	0.000272 for each Housing Unit
Football Fields	1 per 20,000 population =	1 per 9,187 Housing Units =	0.000109 for each Housing Unit
Picnic Pavilions	1 per 5,000 population =	1 per 2,297 Housing Units =	0.000435 for each Housing Unit
Playgrounds	1 per 5,000 population =	1 per 2,297 Housing Units =	0.000435 for each Housing Unit
Soccer Fields	1 per 5,000 population =	1 per 2,297 Housing Units =	0.000435 for each Housing Unit
Spraygrounds	1 per 20,000 population =	1 per 9,187 Housing Units =	0.000109 for each Housing Unit
Swimming Pools	1 per 20,000 population =	1 per 9,187 Housing Units =	0.000109 for each Housing Unit
Tennis Courts	1 per 3,500 population =	1 per 1,608 Housing Units =	0.000622 for each Housing Unit
Volleyball Courts	1 per 8,000 population =	1 per 3,675 Housing Units =	0.000272 for each Housing Unit
Buildings:			
Community/Cultural Ctrs	1 per 20,000 population =	1 per 9,187 Housing Units =	0.000109 for each Housing Unit
Maintenance Facilities	1 per park =	1 per 2,816 Housing Units =	0.000355 for each Housing Unit
Restroom/Concession	1 per 4 fields =	1 per 2,371 Housing Units =	0.000422 for each Housing Unit
Recreation Center	1 per 10,000 population =	1 per 4,594 Housing Units =	0.000218 for each Housing Unit
Senior Rec Center	1 per 20,000 population =	1 per 9,187 Housing Units =	0.000109 for each Housing Unit
Walking/jogging Trails	1 per park =	1 per 2,816 Housing Units =	0.000355 for each Housing Unit
Multi-Purpose Trail System	1 per 20,000 population =	1 per 9,187 Housing Units =	0.000109 for each Housing Unit
Parking	75 per field =	1 per 8 Housing Units =	0.126532 for each Housing Unit

* Dawson County System-Wide Recreation Master Plan: 2012-2017. Adopted February 2012.

Impact Fee LOS Standards

As will be seen below, the impact fee calculations use a combination of LOS standards reflecting current conditions and Master Plan standards where applicable, relevant and useful to the calculations.

First priority is given to the LOS standards adopted in the Master Plan, where those standards relate to actual facilities in the inventory and are based on population. Where an existing category (such as multi-purpose fields) has no comparable component in the Master Plan, the LOS for the current facilities is used. In the case of buildings, the categories between the Plan and actual facilities do not match, and/or the LOS standard differs as to its basis (floor area per population versus number per park). The same is true for maintenance sheds and maintenance yards versus 'maintenance facilities', and parking spaces. Lastly, the LOS for a 'multi-purpose trail system' is not quantified in terms of actual length; establishing an appropriate LOS in the future awaits a trail plan that will quantify this quantifiably.

The standards used in this Methodology Report provide greater clarity to future parks and recreation component development in terms of the County's current activities and planned improvements.

■ Forecasts for Service Area

Future Demand

As discussed above, the Level of Service standards used in this Report are an amalgam of standards established in the County’s *Systemwide Recreation Master Plan* (by preference) and current LOS standards in those cases where the Master Plan does not quantify future improvements in a useful way. The relevant LOS standards are shown on Table 14.

The table below applies the relevant Level of Service calculations to determine the facilities needed to meet the demand created by the existing residents of the county as well as the future demand for park lands and recreation components that will be generated by new growth and development.

Table 14: Existing and Future Demand (Parks)

Component Type	LOS per Housing Unit*	Existing Demand (2017)*	New Growth Demand (2017-40)**
Total Park Acres	0.021739	244.83	233.02
Baseball/Softball Fields	0.000435	4.90	4.67
Basketball Courts (outdoor)	0.000272	3.06	2.92
<i>Multi-Purpose Fields</i>	0.000355	4.00	3.81
Picnic Pavilions	0.000435	4.90	4.67
Playgrounds	0.000435	4.90	4.67
Swimming Pools	0.000109	1.23	1.17
Tennis Courts	0.000622	7.00	6.67
Buildings:			
<i>Gymnasium (sf)</i>	1.509501	17,000	16,180
<i>Maintenance Sheds (sf)</i>	0.372936	4,200	3,997
<i>Office/Concession (sf)</i>	0.221985	2,500	2,379
<i>Recreation Center (sf)</i>	3.196590	36,000	34,264
<i>Restroom/Concession (#)</i>	0.000266	3.00	2.86
<i>Senior Rec Center (sf)</i>	0.443971	5,000	4,759
<i>Maintenance Yard (acres)</i>	0.000022	0.25	0.24
<i>Walking Trails (miles)</i>	0.000169	1.90	1.81
<i>Parking (spaces)</i>	0.111437	1,255	1,194

* 2017 Housing Units = 11,262
 ** New Units (2017-2040) = 10,719

Notes:

All LOS figures from *Systemwide Recreation Master Plan* except those in italics, which are current LOS figures.
 Multi-Purpose fields serve as football and soccer fields. Basketball courts double as volleyball courts.
 Multi-Purpose Trail System not quantified, pending preparation of a trail system plan.

The current number of housing units (11,202) is multiplied by the LOS standard to determine the existing demand of today’s population. Since existing demand is used in the calculation of a few of

Parks and Recreation Facilities

the LOS standards, some of the existing demand figures on Table 14 are the same as the 'current inventory' figures on Table 11; these facilities are those shown on Table 14 in italics.

The increase in housing units between 2017 and 2040 (10,719 - see Table 2) is multiplied by the same LOS to produce the future demand created by future growth.

Impact Fee Eligibility

New recreation components are eligible for impact fee funding only to the extent that the improvements are needed to specifically serve new growth and development, and only at the Level of Service applicable countywide. Table 15 shows the number of new recreation components that are needed to satisfy needs of the county's future residents, and the extent to which fulfillment of those needs will serve future growth demand.

The table begins with the current inventory of recreation components, and the 'existing demand' for those components to meet the needs of the current (2017) population based on the applicable Level of Service standards (shown on Table 14).

Table 15: Future Park Facility Impact Fee Eligibility

Component Type	Current Inventory	Existing Demand	Excess or (Shortfall)	New Growth Demand	Net Total Needed	Total Needed*	% Impact Fee Eligible
Total Park Acres	202.94	244.83	(41.89)	233.02	274.91	274.91	84.76%
Baseball/Softball Fields	15	4.90	10.10	4.67	(5.43)	-	
Basketball Courts (outdoor)	2	3.06	(1.06)	2.92	3.98	4.00	99.53%
Multi-Purpose Fields	4	4.00	0.00	3.81	3.81	4.00	95.16%
Picnic Pavilions	4	4.90	(0.90)	4.67	5.57	6.00	77.78%
Playgrounds	3	4.90	(1.90)	4.67	6.57	7.00	66.66%
Swimming Pools	1	1.23	(0.23)	1.17	1.39	2.00	58.34%
Tennis Courts	6	7.00	(1.00)	6.67	7.67	8.00	83.33%
Buildings:							
Gymnasium (sf)	17,000	17,000	0	16,180	16,180	16,180	100.00%
Maintenance Sheds (sf)	4,200	4,200	0	3,997	3,997	3,997	100.00%
Office/Concession (sf)	2,500	2,500	0	2,379	2,379	2,379	100.00%
Recreation Center (sf)	36,000	36,000	0	34,264	34,264	34,264	100.00%
Restroom/Concession (#)	3	3	0	2.86	2.86	3.00	95.18%
Senior Rec Center (sf)	5,000	5,000	0	4,759	4,759	4,759	100.00%
Maintenance Yard (acres)	0.25	0	0	0.24	0.24	0.24	100.00%
Walking Trails (miles)	1.9	1.9	0	1.81	1.81	1.81	100.00%
Parking (spaces)	1,255	1,255	0	1,194	1,194	1,194	100.00%

* For recreation components that can only be built in whole numbers: 'Net Total Needed' rounded up to next whole number. For park acres, building floor areas, maintenance yard acres, walking trails, and parking spaces, actual number shown.

The 'Excess or (Shortfall)' column compares the existing demand to the current inventory for each recreation component. If an 'excess' were to exist, that would mean that more components (or portions of components) exist than are needed to meet the demands of the current population, and those 'excesses' would create capacity to meet the recreational needs of future growth. This is the case for one component in Dawson County—baseball/softball fields.

Conversely, a 'shortfall' indicates that there are not enough components (or portions of components) to meet the recreational needs of the current population based on the Level of Service standard (e.g., park acres, basketball courts and playgrounds, etc.).

The column on Table 15, labeled 'New Growth Demand', shows the total demand for recreation components specifically to meet future growth needs (from Table 14), and the 'Net Total Needed' column shows all existing and future needs combined. The current 'shortfall' in park acres, playgrounds and several other components, is added to new growth's facility needs to bring the current population up to the current Level of Service required to be available to all—both current and future residents.

For many components, the 'Total Needed' column is rounded up to whole numbers. This is simply because the County cannot build a portion of a facility; it must build an entire facility. As a result, the '% Impact Fee Eligible' column may reflect a percentage less than 100%.

For example, existing residents suffer a 'shortfall' in playgrounds based on the LOS standard. New growth mathematically demands 4.67 new playgrounds; together, 6.57 playgrounds are needed to bring the current residents and future residents up to the same Level of Service. The County cannot build a portion of a playground; it must build an entire playground for it to be usable. Thus 7 playgrounds need to be added, and the portion of the 7 new playgrounds that is impact fee eligible (4.67) results in the percentage that is impact fee eligible (66.66%); 27.18% of the total goes to satisfy existing demand, and the remainder (6.15%) is excess capacity available to serve new growth beyond the current planning horizon. As such, the excess capacity could be recouped through impact fees at that time, but cannot be charged to new growth between now and 2040.

The outlier is baseball/softball fields. The 15 existing fields in the inventory provides an 'excess capacity' of about ten fields using the LOS standard adopted in the Master Plan. This 'excess capacity' exceeds the 'raw' demand created by new growth (4.67 fields). As a result, no additional fields will be needed in the foreseeable future.

Future Costs

Table 16 is a listing of the future capital project costs to provide the additional recreation components needed to attain or address the applicable Level of Service standards.

Costs are based on cost estimates provided in the *Systemwide Recreation Master Plan* for all recreation components except buildings. For new building construction, the actual amount spent by the County on each such facility in the past was raised to 2012 dollars using the Building Construction Index (BCI) from the actual year of each expenditure. All of these 2012 figures in the 'Net Cost per Unit' column are then increased to the gross cost to account for a contingency (10%) and professional services (7%)—a figure also taken from the Master Plan.

The cost estimates provided in the Master Plan were developed for the 2012 report; these are increased to current (2017) figures using the CPI inflation rate. In similar fashion, the building construction costs calculated in 2012 equivalent dollars are increased to 2017 values using the BCI inflation rate.

The 2017 figures in the 'Total Needed' column are drawn from the 'Total Needed' column in Table 15. These totals, multiplied by the 2017 per unit costs, establish the total cost in current dollars for each recreation component. These 'Total Cost (2017)' figures on the Table are converted to 'New Growth Share' dollars based on the percentage that each improvement is impact fee eligible (also from Table 15).

Amounts in the 'New Growth Share' column are reduced to the extent that certain projects are deferred from impact fee funding, as follows: The number of acres of park land and the number of parking spaces are deferred from impact fee parking to the extent of 50% of the impact fee eligible amount; while the total cost of the Aquatic Center is deferred in favor of alternate funding sources.

The calculation of Net Present Value is explained following the table.

Table 16: Future Costs to Meet Future Demand for Parks and Recreation

Component Type	2012 Cost Estimates		Current (2017) Cost Estimates			Percent Impact Fee Eligible	New Growth Share	2030 Net Present Value***
	Net Cost per Unit*	Gross Cost per Unit**	Per Unit Cost (2017)	Total Needed	Total Cost (2017)			
Park Acres****	\$ 18,000	\$ 21,060	\$ 22,665	274.91	\$ 6,230,786	84.76%	\$ 2,640,719	\$ 2,995,770
Baseball/Softball Fields	\$ 250,000	\$ 292,500	\$ 345,044	-	\$ -		\$ -	\$ -
Basketball Courts (outdoor)	\$ 50,000	\$ 58,500	\$ 69,009	4	\$ 276,036	99.53%	\$ 274,740	\$ 395,649
Multi-Purpose Fields	\$ 150,000	\$ 175,500	\$ 207,026	4	\$ 828,104	95.16%	\$ 788,037	\$ 1,134,839
Picnic Pavilions	\$ 50,000	\$ 58,500	\$ 69,009	6	\$ 414,054	77.78%	\$ 322,032	\$ 463,753
Playgrounds	\$ 75,000	\$ 87,750	\$ 103,513	7	\$ 724,591	66.66%	\$ 483,046	\$ 695,626
Aquatic Center (deferred)	\$ 11,000,000	\$ 12,870,000	\$ 13,774,166	1	\$ 13,774,166	58.34%	\$ -	\$ -
Tennis Courts	\$ 75,000	\$ 87,750	\$ 103,513	8	\$ 828,104	83.33%	\$ 690,022	\$ 993,690
Buildings:								
Gymnasium (sf)	\$ 113	\$ 132	\$ 141	16,180	\$ 2,281,380	100.00%	\$ 2,281,380	\$ 2,550,964
Maintenance Sheds (sf)	\$ 75	\$ 87	\$ 93	3,997	\$ 371,721	100.00%	\$ 371,721	\$ 415,646
Office/Concession (sf)	\$ 147	\$ 172	\$ 184	2,379	\$ 437,736	100.00%	\$ 437,736	\$ 489,462
Recreation Center (sf)	\$ 113	\$ 132	\$ 141	34,264	\$ 4,831,224	100.00%	\$ 4,831,224	\$ 5,402,116
Restroom/Concession (#)	\$ 200,000	\$ 234,000	\$ 250,439	3	\$ 751,317	95.18%	\$ 715,092	\$ 799,593
Senior Rec Center	\$ 186	\$ 218	\$ 233	4,759	\$ 1,108,847	100.00%	\$ 358,847	\$ 401,251
Maintenance Yard (acres)	\$ 18,000	\$ 21,060	\$ 22,665	0.24	\$ 5,393	100.00%	\$ 5,393	\$ 6,118
Walking Trails (miles)	\$ 158,400	\$ 185,328	\$ 218,620	1.81	\$ 395,375	100.00%	\$ 395,375	\$ 569,373
Parking (spaces)****	\$ 1,600	\$ 1,872	\$ 2,208	1,194	\$ 2,636,352	100.00%	\$ 1,318,176	\$ 1,898,284
				Total	\$ 35,895,186		\$ 15,913,540	\$ 19,212,136

* Cost figures drawn from *Systemwide Recreation Master Plan* (2012 estimates) for all component types except buildings. Per square foot costs for buildings derived from actual costs from the Fixed Assets listing, raised to 2012 equivalent costs.

** Includes contingency at 10% and planning/architectural/engineering/legal services at 7%.

*** Actual construction dates will vary. NPV based on CPI, CCI or BCI as appropriate, in an average construction year of 2030. New Growth Share for the Senior Rec Center reflects a reduction for a \$750,000 grant.

**** Cost per park or maintenance yard acre includes land acquisition and site preparation. Impact fee funding for park land acquisition and new parking spaces partially deferred at 50%.

Note: All cost figures shown rounded to nearest whole dollar.

The Net Present Value of new growth’s share of the cost for each component is calculated as follows: Since the annual ‘pace’ of component construction over the 2017-2040 period is not known, 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.

To calculate the 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 (2017) estimated costs using Engineering News Record’s (ENR) 10-year average building cost inflation (BCI) rate for buildings (such as gymnasiums) and the 10-year average CPI rate for all other projects. All project costs are then reduced to current NPV dollars using the Net Discount Rate.

Fire Protection

■ Introduction

Fire protection services are provided to the entire county through the Dawson County Emergency Services Department. The capital value of the department's services is based upon fire stations, administrative office space, and apparatus having a life of 10 years or more.

The Emergency Services department provides service throughout Dawson County, including the City of Dawsonville, which overall totals 211 square miles of coverage area and 50 miles of shoreline on Lake Sydney Lanier. Services are provided through three operating divisions: Fire/Rescue, the Emergency Management Agency, and Emergency Medical Services. Much of the data in this chapter is drawn from the *Fire Services Assessment* prepared by the Georgia Mountains Regional Commission published in November, 2016. As a convention, the term 'fire protection services' is used in this chapter to apply to all fire and EMS services provided by the Emergency Services Department.



■ Service Area

Fire protection operates as a coordinated system, with each station backing up the other stations in the system. The backing up of another station is not a rare event; it is the essence of good fire protection planning. All stations do not serve the same types of land uses, nor do they all have the same apparatus. It is the strategic placement of personnel and equipment that is the backbone of good fire protection. Any new station would relieve some of the demand on the other stations. Since the stations would continue to operate as 'backups' to the other stations, everyone in the county would benefit by the construction of the new station since it would reduce the 'backup' times the station nearest to them would be less available. For these reasons the entire county is considered a single service area for the provision of fire protection and EMS services because all residents and employees within the county have equal access to the benefits of the program.

■ Level of Service

Current Inventory

Fire protection and emergency medical services are provided currently by 8 stations with a combined square footage of 26,016, comprising 25 bays and utilizing a total of 29 heavy vehicles. In addition, the department maintains a facility, which includes a burn building,

Fire Protection

for training. Table 17 presents the 2017 inventory of facilities and impact fee eligible apparatus in the county.

Table 17: Current Capital Improvements

Stations			Vehicles*							
Facility	Floor Area (Sq Ft)	Bays	Engine	Tender	Tanker	Brush	Battalion	Medic	Squad	Total
Station 1 - Memory Lane	7,632	3	1	1		1	1	1		5
Station 2 - Liberty Drive	3,900	4	1	1				1	1	4
Station 3 - Harmony Church Rd	2,784	3	1	1				1		3
Station 4 - Emma Terrace	2,100	3	1	1						2
Station 5 - Kelly Bridge Road	1,800	3	1	1	1					3
Station 6 - Hubbard Road	3,800	4	1	1		1		1	1	5
Station 7 - Dawson Forest Road	2,000	3	2	1				1	1	5
Station 8 - Monument Road	2,000	2	1	1						2
Total Existing System**	26,016	25	9	8	1	2	1	5	3	29

* Vehicles having a service life of 10 years or more.

** In addition to the stations, the department operates a fire training facility, which includes a burn building.

The current capital improvements from Table 17 are translated into the current Level of Service (LOS) for fire protection and emergency medical services in Dawson County on Table 18.

Table 18: Level of Service Calculations - 2017

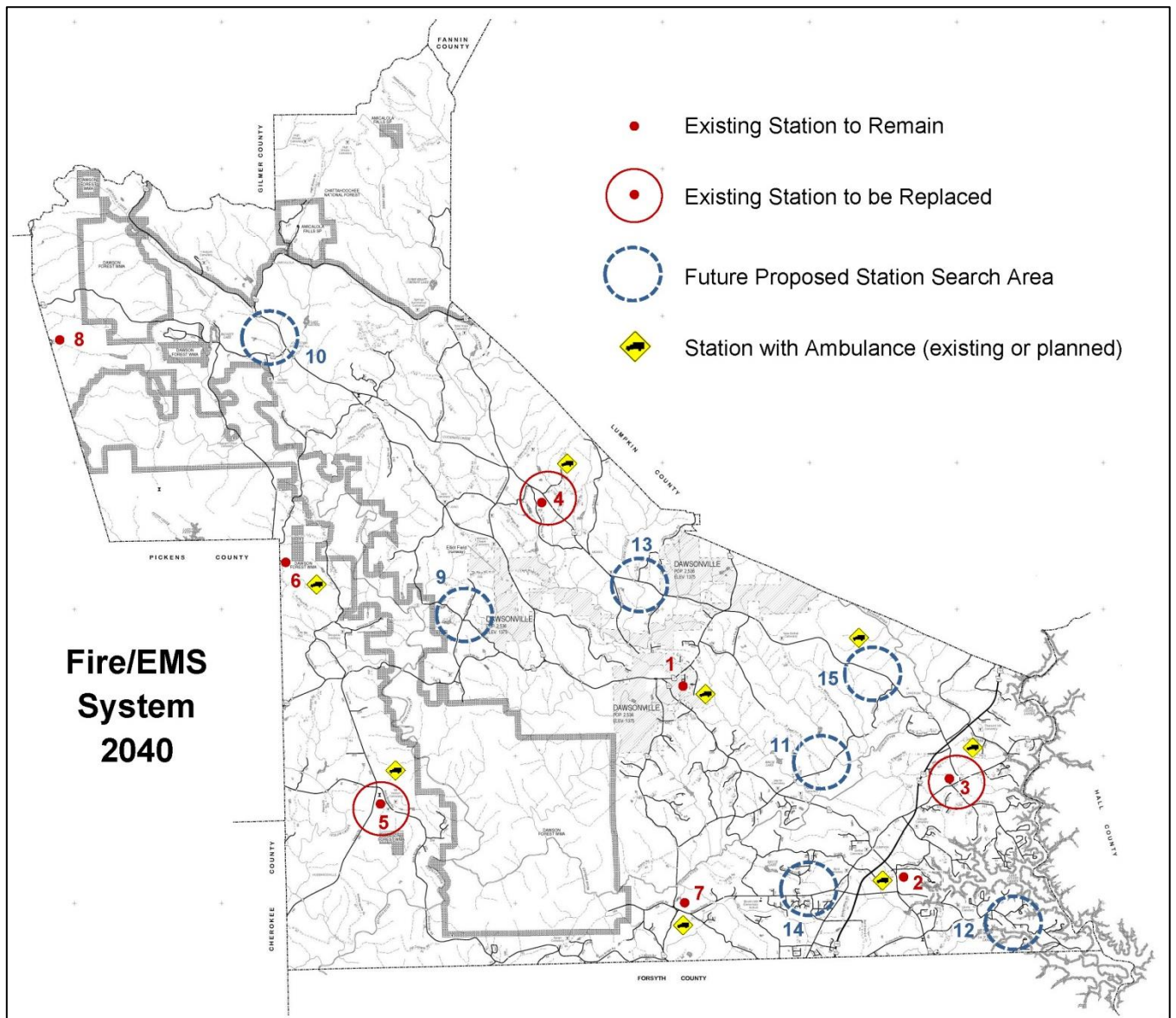
Facility	Current Service Population	Level of Service
Total Existing Floor Area	2017 Day-Night Population	Square Feet per 2017 Day-Night Population
26,016	34,807	0.747436
Total Existing Station Bays	2017 Day-Night Population	Bays per 2017 Day-Night Population
25	34,807	0.000718
Total Existing Vehicles	2017 Day-Night Population	Vehicles per 2017 Day-Night Population
29	34,807	0.000833

The current LOS is measured in terms of the number of vehicles (engines, tankers, medic units, etc.), and the number of square feet and vehicle bays in the fire stations, per day-night population in the service area. Day-night population is used as a measure in that fire protection services are available on a 24-hour basis, provided continuously to both residences and businesses throughout the county.

Future System

In order to adequately serve future growth and development in the county to 2040, a number of stations will need to be built and new vehicles purchased. Overall, future plans call for the replacement (and enlargement) of three aging and obsolete stations and the construction of ultimately seven new stations (four by 2040) strategically located throughout the county. Importantly, the current Fire/EMS system of facilities has capacity available to accommodate a portion of future growth, which reduces the overall need for new facilities.

The map below conceptualizes the future planned Fire/EMS system as currently envisioned. It is important to bear in mind that future growth patterns could produce changes in the location of some stations or the order in which construction would need to occur. Three stations (11, 13 and 14) will not be built before 2040, but land will be acquired for them before 2040.



Fire Protection

A key factor in determining future station locations is consideration of achieving ISO standards with regard to response times and road miles to be travelled within each fire service district. As the county grows, population concentrations will increase in high-growth areas, new commercial buildings and multi-family complexes will be built, and inevitably traffic congestion will mount on major roads. As a result, 'densification' of fire service districts in the growing areas of the county—primarily the GA 400/Lake Area and the area extending from there to Dawsonville and beyond (as shown on the County's Comprehensive Plan map)—will be needed to maintain and possibly increase service and decrease response times. This would have the added benefit of potentially reducing fire insurance premiums as a result.

Future System Improvements

The future system to be achieved by 2040, as currently envisioned, is summarized on the table below. The table excludes the construction of Stations 11, 13 and 14, and the acquisition of vehicles for those stations, which will be deferred until after 2040.

Table 19: Future Fire/EMS System - 2040

Stations			New Bays Added**	Vehicles Added*				Year of Addition
Facility	Existing Bays	Existing Vehicles		Engine	Tender	Medic	Ladder	
Station 1 - Memory Lane	3	5					1	2020
Station 2 - Liberty Drive	4	4					1	2023
Replace Station 3 - Harmony Church Rd	3	3	1	1				2023
Replace Station 4 - Emma Terrace	3	2	1	1		1		2022
Replace Station 5 - Kelly Bridge Road	3	3	1			1		2020
Station 6 - Hubbard Road	4	5						
Station 7 - Dawson Forest Road	3	5						
Station 8 - Monument Road	2	2						
New Stations:								
Station 9 - Sweetwater Juno Road			3	2	1			2019
Station 10 - SR 183 Area			2	1	1			2021
Station 11 - Etowah River Road Area			0	0	0			2025
Station 12 - War Hill Park Rd Area			1	1				2028
Station 13 - SR 136 at Shoal Creek Area			0	0	0			2031
Station 14 - Dawson Forest at Red Rider Area			0	0	0			2034
Station 15 - SR 136 at Cothran Road Area			4	2	1	1		2037
Total Future System (2040)***			13	8	3	3	2	

* Excludes vehicles relocated from Stations 3, 4 and 5 when the stations are replaced. Impact fee funding for equipment for Stations 11, 13 and 14 deferred. For all stations, types of vehicles may vary from the "standard complement" depending on the individual needs of each service area.

** Excludes replacement of 3 bays each at existing Stations 3, 4 and 5 when replacement stations built. Impact fee funding for construction of Stations 11, 13 and 14 deferred, except for land acquisition.

*** In addition to the stations, expansion of the training facility and burn building is proposed in 2024.

Note: New station search areas are approximate; specific station locations will reflect growth patterns and land availability, which may also affect the order of construction.

In summary, the future system is planned to include 15 existing and new stations (a net increase of 4 by 2040 and 7 eventually) and an expansion of the fire training center.

In addition, a net increase of 25 vehicles (16 by 2040 and 9 thereafter for a total of 54), including 2 new ladder trucks and an increase of 3 new ambulances are planned. As part of the program, three 3-bay existing but obsolete stations are proposed to be replaced with modern, 4-bay facilities.

Using the figures from Table 19 for both the existing facilities and planned improvements, Table 20 shows the resulting LOS calculations for the system as of 2040.

As can be seen on the table, the LOS standards for the future system are lower than for the current system, which is a result of taking advantage of the residual capacity in the existing system to provide service to at least a portion of anticipated growth. Applying the current LOS factors from Table 18 to all future growth, for instance, would have projected a future need for as many as 12 or 14 new stations, instead of 7, and as many as 56 more vehicles, not 25.

Table 20: Future Level of Service Calculations - 2040

Facility	Future Service Population	Level of Service
Total Future Floor Area	2040 Day-Night Population	Square Feet per 2040 Day-Night Population
34,090	67,560	0.504589
Total Future Station Bays	2040 Day-Night Population	Bays per 2040 Day-Night Population
38	67,560	0.000562
Total Future Vehicles	2040 Day-Night Population	Vehicles per 2017 Day-Night Population
45	67,560	0.000666



■ Future Costs

There are three categories of future costs: those for facilities (new station construction and the training center), those for new vehicle purchases, and those for the Fire Hydrant Extension program.

Table 21: Timing of Future Fire/EMS Facility Projects

Year	Day-Night Pop Increase over 2017	Incremental Demand		
		Station Number	New Bays Added *	New Vehicles
2017	34,807			
2018	1,224			
2019	2,462	9	3	3
2020	3,723	5**	1	2
2021	5,003	10	2	2
2022	6,308	4	1	2
2023	7,633	3***	1	2
2024	8,982			
2025	10,355	11****	0	0
2026	11,748			
2027	13,162			
2028	14,593	12	1	1
2029	16,043			
2030	17,505			
2031	18,983	13****	0	0
2032	20,479			
2033	21,983			
2034	23,497	14****	0	0
2035	25,020			
2036	26,556			
2037	28,096	15	4	4
2038	29,641			
2039	31,198			
2040	32,753			
Totals	32,753		13	16

* Excludes replacement of 3 bays each at existing Stations 3, 4 and 5 when replacement stations built.

** Includes one ladder truck for Station 1.

*** Includes one ladder truck for Station 2.

**** Impact fee funding for station construction (except land acquisition) and equipment deferred.

As a prologue to the **facility and system improvements**, Table 21 shows the anticipated timing of the projects and expenditures. Timing for near-term system improvements has been determined using two factors: first, immediate needs identified from the County’s Capital Improvements Program (CIP) and to meet growing service demands in areas experiencing much of the recent increases in development; and second, to extend service to the far northern portion of the county not currently well-served.

Once the immediate needs of the system are addressed, additional project are related to future increases in the day-night population—correlating increases in service to the growing demands of future growth and development—as well as increasing service into pockets of areas less served than others.

As to the **Fire Hydrant Extension Program**, the schedule of hydrant installations is closely coordinated with the extension of and upgrades to major water lines in high-growth areas by the Etowah Water and Sewer Authority.

The three categories—facility costs, vehicle costs, and the fire hydrant extension program—are discussed separately below.

Facility Costs

The estimated costs of the facility projects scheduled on Table 21 for the stations are shown on Table 22. Costs shown in the 'Current (2017) Dollars' columns are based on the current gross per-bay cost of a standard three-bay fire station (\$460,000 in total impact fee eligible capital cost per bay), drawn from the *Fire Services Assessment* report prepared by the Georgia Mountains Regional Commission (GMRC) in 2016. Since the 'per bay' costs are determined by dividing the total cost of construction of a standard station by the number of resulting bays, the gross cost per bay therefore includes a portion of the cost of administrative and other space in a standard station.

For Stations 11, 13 and 14, only land acquisition costs are considered for impact fee funding in the current program. These costs (\$125,000 per station in current dollars) are also drawn from the *Fire Services Assessment* report prepared by the GMRC in 2016. Four stations listed on the table (4, 5, 9 and 10) are needed to meet LOS standards but will be funded with SPLOST revenue instead of impact fees.

The 2017 total dollar amounts for impact fee funded projects are then converted to Net Present Value using ENR's 10-year average Building Construction Index (BCI) for the appropriate years. (NPV calculations are discussed fully in the Adjustments and Credits chapter).

The 'percent impact fee eligible' figure on Table 22 for Station 3 reflects the 3-bays that are not impact fee eligible because they will be replaced by the new 4-bay stations. Stations 11, 13 and 14 are 100% impact fee eligible and, thus, so are the land acquisition costs.

Table 22: Impact Fee Costs - Facilities

Facility	Current (2017) Dollars			Future Cost		Impact Fee Eligible	
	Replaced Bays	New Bays Added*	Total Cost	Year	Net Present Value**	Percent Eligible	Eligible Cost
Station 9		\$ 1,380,000	\$ 1,380,000	2019	n/a ***	n/a ***	\$ -
New Station 5	\$ 1,380,000	\$ 460,000	\$ 1,840,000	2020	n/a ***	n/a ***	\$ -
Station 10		\$ 920,000	\$ 920,000	2021	n/a ***	n/a ***	\$ -
New Station 4	\$ 1,380,000	\$ 460,000	\$ 1,840,000	2022	n/a ***	n/a ***	\$ -
New Station 3	\$ 1,380,000	\$ 460,000	\$ 1,840,000	2023	\$ 1,937,339	25%	\$ 484,335
Station 11****		\$ -	\$ 125,000	2025	\$ 133,894	100%	\$ 133,894
Station 12		\$ 460,000	\$ 460,000	2028	\$ 505,594	100%	\$ 505,594
Station 13****		\$ -	\$ 125,000	2031	\$ 140,977	100%	\$ 140,977
Station 14****		\$ -	\$ 125,000	2034	\$ 144,658	100%	\$ 144,658
Station 15		\$ 1,840,000	\$ 1,840,000	2037	\$ 2,184,961	100%	\$ 2,184,961
Training Center		\$ 207,919	\$ 207,919	2024	\$ 220,807	100%	\$ 220,807
	\$ 4,140,000	\$ 6,187,919	\$ 10,702,919		\$ 5,268,229		\$ 3,815,226

* Based on an average cost per bay for a three-bay station of \$460,000.

** Net Present Value = 2017 cost estimate per fire station bay inflated to target year using the ENR Building Cost Index (BCI), reduced to NPV using Discount Rate.

*** Funded with SPLOST revenue.

**** Impact fee funding for station construction and equipment deferred; land acquisition estimated at \$125,000 in current (2017) dollars.

Fire Protection

Vehicle Costs

Vehicle costs are calculated in much the same way as the facility costs. The 2017 costs for a new engine, tender and medic vehicle (ambulance) are drawn from the *Fire Services Assessment* report. The current cost for a ladder truck is drawn from recent purchase history of other jurisdictions.

The vehicles to be purchased for Station 9, and one ladder truck, are scheduled to be purchased with SPLOST revenue. All other vehicles are 100% impact fee eligible in that they add new capacity to serve future growth and development.

The Net Present Value calculation, in this case, is based on the 10-year average CPI (as discussed in the Adjustments and Credits chapter).

Table 23: Impact Fee Costs - Vehicles

Facility	Engine	Tender	Medic	Ladder	Total Cost (2017)	Year	Net Present Value*
Station 9	n/a **	n/a **	\$ -	\$ -	\$ -	2019	\$ -
New Station 5	\$ -	\$ -	\$ 250,000	\$ -	\$ 250,000	2020	\$ 257,385
Station 1	\$ -	\$ -	\$ -	n/a **	\$ -	2020	\$ -
Station 10	\$ 400,000	\$ 300,000	\$ -	\$ -	\$ 700,000	2021	\$ 727,705
New Station 4	\$ 400,000	\$ -	\$ 250,000	\$ -	\$ 650,000	2022	\$ 682,315
New Station 3	\$ 400,000	\$ -	\$ -	\$ -	\$ 400,000	2023	\$ 423,981
Station 2	\$ -	\$ -	\$ -	\$ 1,100,000	\$ 1,100,000	2023	\$ 1,165,947
Station 11***	\$ -	\$ -	\$ -	\$ -	\$ -	2025	\$ -
Station 12	\$ 400,000	\$ -	\$ -	\$ -	\$ 400,000	2028	\$ 445,059
Station 13***	\$ -	\$ -	\$ -	\$ -	\$ -	2031	\$ -
Station 14***	\$ -	\$ -	\$ -	\$ -	\$ -	2034	\$ -
Station 15	\$ 800,000	\$ 300,000	\$ 250,000	\$ -	\$ 1,350,000	2037	\$ 1,639,157
					\$ 4,850,000		\$ 5,341,548

* Net Present Value = 2017 cost estimate for vehicles inflated to target year using the Consumer Price Index (CPI), reduced to NPV using Discount Rate.

** Equipment funded with SPLOST revenue.

*** Impact fee funding for vehicle costs for Stations 11, 13 and 14 deferred.



Fire Hydrant Extensions

The Etowah Water and Sewer Authority is in the process of executing a program of extending new major water mains and replacing some undersized distribution water mains in various parts of the county. All of these mains will provide increased pressures and flows that will now support fire hydrants. The County has undertaken a cooperative program of funding fire hydrants to be placed as these new mains are installed, thus bringing a considerable increase in firefighting capability to these currently unserved areas. Since these extensions will increase capacity for all properties in the water service areas, thus promoting new growth and development, the expenditures are 100% impact fee eligible.

The 15-year program is detailed on Table 24 as to the number of hydrants to be installed on an annual basis in coordination with the Authority’s scheduled extension and upgrade efforts.

Table 24: Fire Hydrant Extension Program

Year	Number of Hydrants	Cost (2017 \$)	Cost (NPV)
2017	3	\$ 11,895	\$ 11,895
2018	14	\$ 55,510	\$ 57,089
2019	11	\$ 43,615	\$ 46,132
2020	12	\$ 47,580	\$ 51,758
2021	11	\$ 43,615	\$ 48,794
2022	12	\$ 47,580	\$ 54,745
2023	18	\$ 71,370	\$ 84,454
2024	37	\$ 146,705	\$ 178,538
2025	22	\$ 87,230	\$ 109,178
2026	8	\$ 31,720	\$ 40,831
2027	10	\$ 39,650	\$ 52,490
2028		\$ -	\$ -
2029	18	\$ 71,370	\$ 99,936
2030		\$ -	\$ -
2031	12	\$ 47,580	\$ 70,469
2032	21	\$ 83,265	\$ 126,829
Total	209	\$ 828,685	\$ 1,033,137

The 2017 cost shown on the table is the average cost to add an elbow connection and a standard hydrant to a main as it is installed. The Net Present Value is the current cost inflated to each future year using the ENR’s Construction Cost Index (CCI), reduced by the discount rate to 2017 equivalent dollars.

Average Hydrant Cost = \$ 3,965.00

Law Enforcement

■ Introduction

The Dawson County Sheriff’s Office provides law enforcement services throughout Dawson County, which includes operation of the County detention facilities. The detention facilities and all law enforcement activities are administered from the Law Enforcement Center in Dawsonville; a precinct station is located in a different location than the Law Enforcement Center, but contains no detention facilities.

The Sheriff’s Office provides 24-hour countywide land and marine patrol; serves arrest warrants and civil papers issued by the court; detains suspects and those sentenced to the county detention center; transports inmates locally and throughout the state; provides security to the courts and the governmental center, and during county government meetings; investigates crimes; and operates the 911 emergency communications center.

■ Service Area

The entire county is considered a single service area for the provision of the law enforcement services because all residents and employees in the county have equal access to the benefits of the program.



■ Level of Service

For impact fee purposes, this chapter focuses on the Law Enforcement Center and the operations contained within it. The current year (2017) Level of Service is based on the inventory of the number of inmate beds in the facility and the overall floor area of the Law Enforcement Center. Statistics for the facility are shown in Table 25.

Impact fees are based on increases in capacity to serve new growth and development in the county. Thus, utilization of the detention facility to specifically serve county residents and businesses is related directly to persons that have committed a crime in Dawson County punishable under County laws, and that are held in the jail at least overnight. Other detention activities, such as prisoners awaiting transfer to a State or federal facility, or housed under contract, while a legitimate law enforcement activity, are not occasioned by service directly provided to serve county residents and businesses.

Current utilization limited to Dawson County growth demands only is estimated at 50% of the beds on an average daily basis. This percentage is applied to the Center’s existing 192 beds and shown on Table 25.

Table 25: Inventory of Sheriff's Facilities

Facility	Square Feet	Beds*
County Sheriff's Headquarters and Jail	68,480	96

* Of the Detention Center's 192 beds, utilization by persons arrested, convicted or serving time for crimes committed in Dawson County is estimated at 50% on an average daily basis.

As noted, the Level of Service for law enforcement services in Dawson County is measured in terms of beds per day-night population. Day-night population is used as a measure in that the Sheriff’s Office provides its services on a 24-hour basis.

Table 26: Level of Service Calculation

Applicable Number of Beds	Current Day/Night Population	Beds per Day-Night Population
96	34,807	0.0028

The current LOS, shown in Table 26 is 0.0028 beds per day-night population, based on the Dawson County utilization of all beds available as discussed above.

■ **Forecasts for Service Area**

Future Demand

Table 27 presents the calculations carried out in order to determine the future service demand for detention facility beds in Dawson County. In this Table the current Level of Service from Table 26 is applied to future growth. The 'Day-Night Population Increase' figure is taken from the Day-Night Population table in the Future Growth appendix attached to this Report. The additional number of forecasted day-night population to the year 2040 is multiplied by the Level of Service to produce the future demand figure.

As discussed above, Dawson County utilization specifically for its residents and businesses leaves 96 beds available for non-county driven purposes. In effect, these beds represent a resource for increases in future county-driven utilization as the number of county residents and employees grows, along with the inevitable increase in crimes perpetrated within the county. While new growth will

Law Enforcement

generate a total need for 90 beds to serve the needs of growth and development in Dawson County, the 'residual' 96 beds currently available for non-county use today are available to meet county-driven needs in the future.

As can be seen on Table 27, only 90 beds are needed to meet future demand created by new growth and development. Since this is fewer than the beds available, no additional beds are specifically needed for Dawson County inmates, and no expansion of the jail for county-specific needs is proposed.



Table 27: Future Demand Calculation

Beds per Day-Night Population	Day-Night Pop Increase (2017-40)	New Beds Needed
0.0028	32,753	90
Less: Residual capacity in existing facility		(96)
Net new beds needed		-6

As noted above, an expansion of the Law Enforcement Center (or a stand-alone facility) would be justified and probable to cover all functions of the Sheriff's Office, including beds available for non-county specific incarcerations. However, whatever final form and size a new project might take, none of the cost of a new, larger facility could be funded with impact fees.

Road Improvements

■ Introduction

The information in this chapter is derived from road project information reflecting currently on-going and proposed road projects.

■ Service Area

The service area for these road projects is defined as the entire county, in that these road projects are recognized as providing primary access to all properties within the county as part of the county-wide network of principal streets and thoroughfares. All new development within the county will be served by this countywide network, such that improvements to any part of this network to relieve congestion or to otherwise improve capacity will positively affect capacity and reduce congestion throughout the county.

■ Level of Service Standards

Two types of Level of Service standards are used for road improvements: one for the design of roadways at a designated operational level, and one for the actual accommodation of traffic to be generated by new growth and development. The latter standard allows the cost of improvements to the road system to be equitably allocated between improvements that accrue to existing traffic today and improvements that will accommodate traffic generated by future growth and development.

Operational Design Standards

Level of Service (LOS) for roadways and intersections is measured on a 'letter grade' system that rates a road within a range of service from A to F. Level of Service A is the best rating, representing roads operating with unencumbered travel; Level of Service F is the worst rating, representing operational conditions of heavy congestion and long delays. This system is a means of relating the connection between speed and travel time, freedom to maneuver, traffic interruption, comfort, convenience and safety to the capacity that exists in a roadway. This refers to both a quantitative measure expressed as a service flow rate and an assigned qualitative measure describing parameters. *The Highway Capacity Manual, Special Report 209*, Transportation Research Board (1985), defines operational design Level of Service A through F as having the following characteristics:

1. LOS A: free flow, excellent level of freedom and comfort;
2. LOS B: stable flow, decline in freedom to maneuver, desired speed is relatively unaffected;
3. LOS C: stable flow, but marks the beginning of users becoming affected by others, selection of speed and maneuvering becomes difficult, comfort declines at this level;
4. LOS D: high density, but stable flow, speed and freedom to maneuver are severely restricted, poor level of comfort, small increases in traffic flow will cause operational problems;
5. LOS E: at or near capacity level, speeds reduced to low but uniform level, maneuvering is extremely difficult, comfort level poor, frustration high, level unstable; and
6. LOS F: forced/breakdown of flow. The amount of traffic approaching a point exceeds the amount that can transverse the point. Queues form, stop & go. Arrival flow exceeds discharge flow.

Road Improvements

The traffic volume that produces different Level of Service grades differs according to road type, size, signalization, topography, condition and access.

The County has set its Level of Service for road improvements at LOS 'D', a level to which it will strive ultimately. However, interim road improvement projects that do not result in a LOS of 'D' will still provide traffic relief to current and future traffic alike and are thus eligible for impact fee funding.

Accommodating Future Traffic

Regardless of the design of roads in the system, the system must address the future traffic demands that will be created by new growth and development.

All road improvement projects benefit existing and future traffic proportionally to the extent that relief from over-capacity conditions eases traffic problems for everyone. For example, since new growth by 2040 will represent a certain portion of all 2040 traffic, new growth would be responsible for that portions' cost of all road improvements in the system that create new capacity. This approach recognizes that some improvements to the road system do not create new capacity—such as resurfacing, road maintenance, bridge replacements with the same number of lanes, etc.

It is noted that the cost-impact of non-Dawson County generated traffic on the roads traversing the county (cross commutes) is off-set by state and federal assistance. The net cost of the road projects that accrues to Dawson County reasonably represents (i.e., is 'roughly proportional' to) the impact on the roads by Dawson County residents and businesses.

The basis for the road impact fee would therefore be Dawson County's cost for the improvements that create new capacity divided by all traffic in 2040 (existing today plus new growth)—i.e., the cost per trip—times the traffic generated by new growth alone. For an individual land use, the cost per trip (above) would be applied to the number of trips that will be generated by the new development when a building permit is issued, assuring that new growth would only pay its 'fair share' of the road improvements that serve it. All other (non-capacity) improvements would be the cost responsibility of the current base of residents and businesses, including the creation of new capacity that exceeds the needs of future 2040 traffic.

■ Forecasts for Service Area

Of the several road projects that are on-going, the County has identified those that provide an increase in road capacity that will serve new growth; these are shown on Table 28. This is not a list of all County road projects. These projects were selected for inclusion in the County's impact fee program because the specific improvements proposed will increase traffic capacity and reduce congestion to some extent, whether through road widening, improved intersection operations or upgraded signalization.

In addition, the County is currently preparing a Transportation Plan that will address all of the road system improvements needed to fully serve new growth and development to 2040. The challenge to the County is to address the identified future demand that will be placed on the road system in the future and to both serve it with new capacity created in its currently on-going projects and to fully plan additional improvements to the system to accommodate all future traffic.

Table 28: Road Projects and Estimated Costs

Project Description	Total County Cost*	Year of Completion	Net Present Value**
Kelly Bridge Road, full depth reclamation and widening both lanes	\$ 2,200,000.00	2018	\$ 2,262,592.57
Lumpkin Campground Road, lane addition and lane widening	\$ 4,000,000.00	2019	\$ 4,230,847.21
Red Rider Road, right-of-way acquisition and road widening	\$ 1,200,000.00	2019	\$ 1,269,254.16
Sweetwater Juno Road, road widening and resurfacing	\$ 1,300,000.00	2019	\$ 1,375,025.34
Couch Road, road widening and resurfacing	\$ 3,500,000.00	2020	\$ 3,807,317.28
Grant Road East, upgrade dirt to pavement and road widening	\$ 800,000.00	2020	\$ 870,243.95
Shoal Creek - Shoal Creek Road Bridge, replacement with additional lanes and weight	\$ 2,500,000.00	2020	\$ 2,719,512.35
Amicalola River - Goshen Church Bridge, replacement with additional lanes and weight	\$ 1,500,000.00	2021	\$ 1,678,131.39
Whitmire Drive West, add third (center turn) lane	\$ 800,000.00	2021	\$ 895,003.41
Prepare Transportation Plan (in house)	\$ -	2020	\$ -
Total	\$ 17,800,000.00		\$ 19,107,927.67

* Total cost of project less grants or other non-County assistance.

** Net Present Value = current cost inflated to target year using the ENR Construction Cost Index, (CCI) reduced to NPV using the Discount Rate.

The cost figures shown in the 'Total County Cost' column of Table 28 are the current project cost figures. These figures are then calculated in Net Present Value (as discussed in the Cost Adjustments and Credits chapter) and shown in the last column, based on the year of project expenditure.

■ Eligible Costs

As discussed thoroughly in the *Trip Generation* section of the Appendix, new residential and nonresidential growth and development will represent 44.68% of the traffic on Dawson County's road network in 2040. To that extent, new growth's fair share of the road project costs that are attributed to new growth are shown on the following table. This percentage represents new growth's portion of system improvements that create the capacity needed to serve it, while the remaining 55.32% represents that portion of those projects that do not create new capacity, such as resurfacing, road maintenance, lane replacements during bridge widenings, and so forth.

Road Improvements

Table 29: Eligible Cost Calculations

Project*	Net Present Value	% Impact Fee Eligible*	New Growth Cost (NPV)
Kelly Bridge Road, full depth reclamation and widening both lanes	\$ 2,262,592.57	44.67786%	\$ 1,010,877.84
Lumpkin Campground Road, lane addition and lane widening	\$ 4,230,847.21	44.67786%	\$ 1,890,251.81
Red Rider Road, right-of-way acquisition and road widening	\$ 1,269,254.16	44.67786%	\$ 567,075.54
Sweetwater Juno Road, road widening and resurfacing	\$ 1,375,025.34	44.67786%	\$ 614,331.84
Couch Road, road widening and resurfacing	\$ 3,807,317.28	44.67786%	\$ 1,701,027.72
Grant Road East, upgrade dirt to pavement and road widening	\$ 870,243.95	44.67786%	\$ 388,806.34
Shoal Creek - Shoal Creek Road Bridge, replacement with additional lanes and weight	\$ 2,719,512.35	44.67786%	\$ 1,215,019.80
Amicalola River - Goshen Church Bridge, replacement with additional lanes and weight	\$ 1,678,131.39	44.67786%	\$ 749,753.12
Whitmire Drive West, add third (center turn) lane	\$ 895,003.41	44.67786%	\$ 399,868.33
Prepare Transportation Plan (in house)	\$ -	0%	\$ -
Total	\$ 19,107,927.67		\$ 8,537,012.34

* See the *Trip Generation* section in the Appendix. Actual % of trips: 44.6778557%

Exemption Policy

The Dawson County Board of Commissioners adopted its initial statement on Exemptions in its Impact Fee Ordinance. The following updates that statement as part of the Capital Improvements Program:

Dawson County recognizes that certain office, retail trade, lodging, service and industrial development projects provide extraordinary benefit in support of the economic advancement of the county and its citizens over and above the access to jobs, goods and services that such uses offer in general.

To encourage such development projects, the board of commissioners may consider granting a reduction in the impact fee for such a development project upon the determination and relative to the extent that the business or project represents extraordinary economic development and employment growth of public benefit to Dawson County in accordance with adopted exemption criteria.

It is also recognized that the cost of system improvements otherwise foregone through exemption of any impact fee must be funded through revenue sources other than impact fees.

Community Work Program

In 2018, a new and complete Community Work Program within the Comprehensive Plan update will be prepared for all project activities, including the specific impact fee eligible projects below.

5-Year Work Program: Impact Fee Eligible Projects

Project Description	2018	2019	2020	2021	2022	Responsible Party	Cost Estimate	Funding Source	Notes/ Explanation
Library Services									
Purchase collection materials	X	X	X	X	X	Dawson Co. Library	\$195,503	99.5% impact fees; SPLOST	On-going annual purchases
Parks & Recreation									
Acquire park land			X			Parks & Recreation Dept.	\$800,000	84.76% impact fees; SPLOST	140 acres
Senior Rec Center		X	X			Senior Services	\$401,251	100% impact fees	Cost excludes \$750,000 grant
Law Enforcement									
New Jail	X					Sherriff's Office	\$45,715.05	100% impact fees	Wrap-up to previous new jail project identified in the 2006 CIE
Fire Protection									
Purchase fire engine for Station 4					X	Emergency Services	\$400,000	100% impact fees	
Purchase medic vehicle for Station 4					X	Emergency Services	\$250,000	100% impact fees	
Purchase medic vehicle for Station 5			X			Emergency Services	\$250,000	100% impact fees	
Purchase fire engine for Station 10				X		Emergency Services	\$400,000	100% impact fees	
Purchase tender for Station 10				X		Emergency Services	\$300,000	100% impact fees	

Project Description	2018	2019	2020	2021	2022	Responsible Party	Cost Estimate	Funding Source	Notes/ Explanation
Install fire hydrants	x	x	x	x	x	Etowah Water and Sewer Authority	\$237,900	100% impact fees	Annual installation in accordance with the Authority's schedule
Road Improvements									
Kelly Bridge Road, full depth reclamation and widening both lanes	x					Public Works	\$2,200,000	44.68% impact fees; SPLOST	
Lumpkin Campground Road, lane addition and lane widening		x				Public Works	\$4,000,000	44.68% impact fees; SPLOST	
Red Rider Road, right-of-way acquisition and road widening		x				Public Works	\$1,200,000	44.68% impact fees; SPLOST	
Sweetwater Juno Road, road widening and resurfacing		x				Public Works	\$1,300,000	44.68% impact fees; SPLOST	
Couch Road, road widening and resurfacing			x			Public Works	\$3,500,000	44.68% impact fees; SPLOST	
Grant Road East, upgrade dirt to pavement and road widening			x			Public Works	\$800,000	44.68% impact fees; SPLOST	
Shoal Creek – Shoal Creek Road Bridge, replacement with additional lanes and weight limit increase			x			Public Works	\$2,500,000	44.68% impact fees; SPLOST	
Amicalola River – Goshen Church Bridge, replacement with additional lanes and weight limit increase				x		Public Works	\$1,500,000	44.68% impact fees; SPLOST	
Whitmire Drive West, add third (center turn) lane.				x		Public Works	\$800,000	44.68% impact fees; SPLOST	
Transportation Plan	x	x	x			Public Works	\$0	Prepared by staff	

Community Work Program

Project Description	2018	2019	2020	2021	2022	Responsible Party	Cost Estimate	Funding Source	Notes/ Explanation
Update impact fee Capital Improvements Element with road improvements			x	x		Public Works	\$0	Prepared by staff	Consultant assistance, if needed, will not be charged to road impact fee fund

Appendix: Glossary

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

Capital improvement: an improvement with a useful life of 10 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 county 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, county, or intergovernmental agreement in which a defined set of public facilities provide service to development within the area. Service areas in Dawson may 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 county 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."

Appendix: Future Growth

In order to accurately calculate the demand for future services for Dawson County, 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 (2017) 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 supply of available housing 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).

'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 fire protection.

The projections used for each public facility category are specified in each public facility chapter.

■ Population and Housing Unit Forecasts

Population projections reflect the growth that is expected over the next 22 years. Based on the county’s rebound from the Great Recession and anticipated continuing growth in the housing market, the ultimate population forecast for 2040 is estimated at 50,000 people—basically a doubling of the number of people in the county today.

The most recent the population estimate for Dawson County published by the Census Bureau was published for 2016. This figure is used as the ‘starting point’ for the projections.

Between 2016 and the total population figure for 2040, the average annual increase is 0.9416%. This annual increase over each preceding year is applied to each year to calculate the intervening years throughout the forecast period.

The following table presents the forecast for population for each year from 2017 to 2040² and also provides a forecast for housing units over the same period. The figures shown are, in essence, mid-year estimates reflecting Census Bureau practice. In other words, the increase in population between 2017 and 2040 would actually be from July 1, 2017 to July 1, 2040.

Population and Housing Projections

	Total Population	Avg. Household Size	Occupied Housing Units	Occupancy Rate	Total Housing Units
2016	23,604	2.423	9,740	89.4%	10,897
2017	24,517	2.436	10,066	89.4%	11,262
2018	25,453	2.428	10,481	89.4%	11,726
2019	26,412	2.424	10,896	89.4%	12,190
2020	27,394	2.421	11,314	89.4%	12,658
2021	28,396	2.420	11,733	89.4%	13,127
2022	29,418	2.421	12,149	89.4%	13,592
2023	30,459	2.425	12,560	89.4%	14,052
2024	31,519	2.430	12,973	89.4%	14,514
2025	32,595	2.435	13,385	89.4%	14,975
2026	33,687	2.441	13,800	89.4%	15,439
2027	34,794	2.448	14,216	89.4%	15,905
2028	35,915	2.454	14,634	89.4%	16,372
2029	37,048	2.462	15,050	89.4%	16,838
2030	38,193	2.470	15,463	89.4%	17,300
2031	39,348	2.478	15,877	89.4%	17,763
2032	40,512	2.487	16,289	89.4%	18,224
2033	41,684	2.496	16,699	89.4%	18,683
2034	42,863	2.505	17,109	89.4%	19,141
2035	44,047	2.515	17,516	89.4%	19,597
2036	45,235	2.523	17,928	89.4%	20,058
2037	46,425	2.530	18,347	89.4%	20,526
2038	47,617	2.536	18,774	89.4%	21,004
2039	48,809	2.541	19,208	89.4%	21,490
2040	50,000	2.545	19,647	89.4%	21,981
Increase 2017-2040	25,483		9,581		10,719

To estimate the number of housing units each year, the number of occupied housing units is first determined. This is calculated by dividing the population each year by the average household size. For household sizes, estimates published this year by Woods & Poole Economics (a nationally recognized source also accepted by the State) were relied upon.

To find the total number of housing units, vacant units must be added in. This was determined by using an ‘occupancy rate’ based on the proportion of occupied units to vacant units for the last data point available—the American Community Survey published in 2015 by the Census Bureau. Dividing the number of occupied units by the occupancy rate produces the total number of housing units.

² 2016 is shown on the table for consistency with the Census Bureau’s estimate.

■ Employment Forecasts

The table below shows the forecasts for employment growth countywide in Dawson County, from 2017 to 2040. The employment figures for Dawson County are based on forecasts published by Woods & Poole Economics in their latest (2017) *Georgia Profile* for Dawson County. Woods & Poole counts jobs, not just employed people, which captures people holding two or more jobs, self-employed sole proprietors and part-time workers. This gives a more complete picture than Census figures (the number of people with jobs).

In the table below the total employment figures are refined to show what is referred to as 'non-building related' jobs. 'Non-building related' jobs are those that do not normally require issuance of a building permit, and thus would not be assessed an impact fee. Such jobs include any employment that is considered to be transitory in nature, such as those working on construction sites or are strictly land-based such as farming and other agricultural workers.

This is done to better measure the services being provided by the County, which in this report will be measured and, ultimately, assessed based on structures.

Employment Projections

	Total Employment	Non-Building Related*	Government	Private Sector Employment
2016	12,328	1,127	1,202	9,999
2017	12,652	1,144	1,218	10,290
2018	12,974	1,162	1,234	10,578
2019	13,283	1,176	1,250	10,857
2020	13,594	1,192	1,266	11,136
2021	13,903	1,208	1,281	11,414
2022	14,217	1,222	1,298	11,697
2023	14,531	1,237	1,313	11,981
2024	14,850	1,252	1,328	12,270
2025	15,172	1,263	1,342	12,567
2026	15,500	1,275	1,357	12,868
2027	15,832	1,286	1,371	13,175
2028	16,165	1,295	1,385	13,485
2029	16,505	1,305	1,398	13,802
2030	16,845	1,314	1,412	14,119
2031	17,189	1,322	1,425	14,442
2032	17,543	1,330	1,439	14,774
2033	17,895	1,337	1,452	15,106
2034	18,249	1,344	1,464	15,441
2035	18,607	1,350	1,477	15,780
2036	18,974	1,357	1,489	16,128
2037	19,342	1,363	1,501	16,478
2038	19,713	1,370	1,512	16,831
2039	20,095	1,375	1,524	17,196
2040	20,477	1,382	1,535	17,560
Increase 2017-2040	7,825	238	317	7,270

The table also shows the number of workers employed by governmental entities (county, state and federal) as estimated by Woods & Poole for each year. Governments are exempt from impact fees, whether a building is to be constructed or not.

The last column on the table shows what is called 'private sector employment', although it also includes nonprofits and institutions. The numbers are derived by subtracting the 'non-building related' workers and the 'government' workers from the total employment figures. Businesses employing these 'private sector' workers are the ones that would be most likely to be assessed an impact fee.

* Includes farm, forestry, mining and construction workers.
Source: 2017 Georgia Profile, Woods & Poole, Economists.

■ Service Area Projections

The entire county is a single service area because all Dawson County services being considered for impact fee funding serve all residents and business in the county, whether in the unincorporated area or within the City of Dawsonville.

As explained in the text of this report, impact fees for the library services and the parks & recreation facilities are paid exclusively by residential uses. Thus, the housing unit count and projections presented earlier form the basis for those impact fee calculations.

For the fire protection and law enforcement categories, the 24-hour service population—called the day-night population—is used for overall Level of Service calculations. Impact fees in these categories are assessed on a per-housing unit basis or on a per-nonresidential square foot basis, depending on the use.

The day-night population calculation is a combination of the population projections and future (‘private sector’) employment projections discussed earlier in this Appendix. The use of day-night population in impact fee calculations is based upon the clear rational nexus between persons and services demanded on a 24-hour basis.

Day-Night Population

	Total Population	Private Sector Employment	Total Day-Night Population
2016	23,604	9,999	33,603
2017	24,517	10,290	34,807
2018	25,453	10,578	36,031
2019	26,412	10,857	37,269
2020	27,394	11,136	38,530
2021	28,396	11,414	39,810
2022	29,418	11,697	41,115
2023	30,459	11,981	42,440
2024	31,519	12,270	43,789
2025	32,595	12,567	45,162
2026	33,687	12,868	46,555
2027	34,794	13,175	47,969
2028	35,915	13,485	49,400
2029	37,048	13,802	50,850
2030	38,193	14,119	52,312
2031	39,348	14,442	53,790
2032	40,512	14,774	55,286
2033	41,684	15,106	56,790
2034	42,863	15,441	58,304
2035	44,047	15,780	59,827
2036	45,235	16,128	61,363
2037	46,425	16,478	62,903
2038	47,617	16,831	64,448
2039	48,809	17,196	66,005
2040	50,000	17,560	67,560
Increase 2017-2040	25,483	7,270	32,753

The day-night population is used to determine Level of Service standards for facilities that serve both the resident population and business employment. The fire department, for instance, protects one’s house from fire 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 service provider facility and a fair way to allocate the costs of such a facility among all of the beneficiaries.

Impact fee calculations for road improvements, on the other hand, are based on the number of vehicle trips generated by homes and businesses onto the county’s road system. These trip generation figures are translated into per-housing unit and per-nonresidential floor area fees using the different trip rates specific to each type of land use.

This is discussed more thoroughly in the next Appendix Section.

Appendix: Trip Generation

In order to calculate new growth and development's fair share of the cost of road improvements, it is necessary to establish how much of the future traffic on Dawson County's roads will be generated by new growth, over and above the traffic generated by the county's residents and businesses today. This Appendix Section describes the process through which this determination is made.

■ Summary

A Level of Service must be established for road improvements in order to assure that, ultimately, existing development and new growth are served equally. This Section also presents the process through which new growth and development's 'fair share' of road improvement costs is calculated, and tables summarizing the technical portions of this methodology are included.

Level of Service

The County has set its Level of Service for road improvements at LOS "D", a level below which most roads in the county operate. Using this LOS maximizes roadway capacity before traffic conditions actually break down (LOS "F").

All road improvement projects benefit existing and future traffic proportionally to the extent that relief from over-capacity conditions eases traffic problems for everyone. For example, since new growth by 2040 will represent a certain portion of all 2040 traffic, new growth would be responsible for that portions' cost of the road improvements.

It is noted that the cost-impact of non-Dawson County generated traffic on the roads traversing the county (cross commutes) is off-set by state and federal assistance. The net cost of the road projects that accrues to Dawson County reasonably represents (i.e., is 'roughly proportional' to) the impact on the roads by Dawson County residents driving to and from their homes, and commuters that come in to work in the county.

The basis for the road impact fee would therefore be Dawson County's cost for the improvements divided by all traffic generated within the county in 2040 (existing today plus new growth)—i.e., the cost per trip—times the traffic generated by new growth alone. For an individual land use, when a building permit is issued, the cost per trip would be applied to the number of trips that will be generated by the new development, assuring that new growth would only pay its 'fair share' of the road improvements that serve it.

Approach

This methodology proceeds along the following lines:

- Total traffic currently generated by Dawson County residents and businesses in 2017 on the road system within the county is calculated from trip generation and commuting data. Various data sources are relied upon to determine current conditions, as explained in each appropriate section, below.
- Future Dawson County-generated traffic from new growth in the county is calculated from housing unit and employment forecasts to 2040.
- The portion of total 2040 traffic that is generated by new housing units and employment in the county establishes the percentage of Dawson County's cost of the future road improvements that can be included in an impact fee.

Summary Table

The table below shows how the portion of 2040 traffic generated by new growth is calculated. The figures represent all trips generated by land use, including pass-by and diverted trips.

Average Daily Trip Ends Generated by New Growth

	2017	2040	Increase	Percent New Growth Trip Ends
Residential Trips	105,056	205,046	99,990	↓
Nonresidential Trips	242,393	413,650	171,257	
Less: Internal Commutes*	(9,080)	(15,496)	(6,416)	
Net New Trip Ends	338,369	603,200	264,831	43.9%

* Residents who work in Dawson County. These trips to and from work are included in the residential trips, above.

The next table, below, calculates the Primary Trip Ends generated by existing and future traffic by deleting pass-by and diverted trips, as discussed below.

Primary Daily Trip Ends Generated by New Growth

	Percent Primary Trip Ends*	Primary Trip Ends			Percent New Growth Primary Trip Ends
		2017	2040	Increase	
Residential Trips	80%	83,619	163,207	79,587	↓
Commercial	51%	117,129	199,885	82,756	
Industrial+Utility	92%	11,222	19,148	7,926	
Less: Internal Commutes	100%	(9,080)	(15,496)	(6,416)	
Net New Primary Trip Ends		202,890	366,743	163,853	44.7%

* Derived from 'Trip Generation Handbook' chapter, *Trip Generation*, 9th Edition, Institute of Transportation Engineers.

Overall, new residents and businesses located within Dawson County will generate 53% (more accurately, 44.6778557%) of all Dawson County vehicles on its roads. Thus, new growth's 'fair share' of the cost to the County to provide road improvements to serve current and future traffic cannot exceed this figure.

■ Pass-by and Diverted Trips

The impact of new growth and development on Dawson County's road network is the increased traffic added to the system, expressed by transportation engineers as 'trips'. Every 'trip' has two ends—a beginning at its origin and an end at its destination (known as 'trip ends'). There are three types of trips, defined as:

A **Primary Trip** (and its trip ends)—a vehicle travelling from its original beginning to its intended final destination. Driving from one's home to one's place of work is an example of a primary trip.

A **Pass-by Trip**—a vehicle travelling along its usual route from its origin to its final destination that stops off at an intermediate location for any reason. A trip from home to work that stops along the way for gas, dropping off a child at daycare, picking up coffee or dinner, or for any other reason, represents a 'pass-by' trip at the intermediate location.

A **Diverted Trip** (previously called a diverted 'link' trip)—a vehicle that diverts from its normal primary route between its origin to its final destination, and takes a different route to stop off at an intermediate location for any reason. While a pass-by trip remains on its normal route, a diverted trip changes its route to other streets to arrive at the intermediate stop.

New primary trips add vehicles to the road network. Pass-by and diverted trips involve the same vehicles stopping off between their original beginnings and their final destinations, and therefore do not add new vehicles to the road network—the vehicles were already there on their way to their final destinations.

These different types of trips result in different types of 'trip ends'. On a home-to-daycare-to-work trip, for instance, there are two primary trip ends (home and work) and two pass-by or diverted trip ends: arriving at the daycare center and leaving from there to drive to work, for instance. The net impact on the road network, however, is created by the one vehicle and its two primary trip ends.

Impact fee calculations take note of these pass-by and diverted trip ends as not adding to the overall traffic on the road network, and deletes them from the total trip ends reported in ITE's *Trip Generation* manual. While the table above uses overall average percentages of primary trip ends derived from ITE for broad land use categories, the actual percentage for each land use listed on the impact fee schedule for roads is applied to the total trip ends to determine the primary trip ends attributed to that land use.

Although both summary tables above reflect about the same percentage of 2040 traffic that will be generated by new growth, the increase in primary trip ends from the second table will play an important role in calculating the per-trip road impact fee.

■ Residential Trip Generation

Average trip generation rates published by the Institute of Transportation Engineers (ITE) differentiate between ‘single-family detached housing’ and ‘apartments’. The closest correlations with the US Census definitions are ‘single-family units’ and ‘multi-family units’, which are shown on the following table.

Residential Units by Type: 2017 and 2040

	2015*	Percent**	Total in 2017***	Increase 2017-2040	Total in 2040
Single-Family Units	9,837	93.3%	10,510	10,003	20,513
Multi-Family Units	704	6.7%	752	716	1,468
Total	10,541	100.0%	11,262	10,719	21,981

* Based on American Community Survey report (Census Bureau).


** Percent of 2015 total housing units.

*** See Forecasts chapter for housing unit projections.

The 2015 breakdown of housing units by type on the table above are taken from the most recent American Community Survey for Dawson County (published by the Census Bureau). The 2015 percentage by housing type (single-family and multi-family) is calculated, and applied to the total number of housing units projected in 2017 (taken from the Future Growth Appendix of this report). It is assumed that these percentages will persist into the future, producing a breakdown of the projected 10,719 new housing units forecast for the 2017-2040 period.

The next table, below, calculates the amount of traffic that is generated by the county’s housing stock today, and the amount that will be generated in 2040.

Residential Trip Generation: 2017-2040 New Growth Increase

	ADT* Trip Ends	2017 Units	2017 ADT Trip Ends	2040 Units	2040 ADT Trip Ends	Increase 2017-2040	Percent New Growth Trip Ends
Single-Family Units	9.52	10,510	100,055	20,513	195,284	95,229	
Multi-Family Units	6.65	752	5,001	1,468	9,762	4,761	
Total		11,262	105,056	21,981	205,046	99,990	48.8%

* Average Daily Traffic (trip ends) on a weekday; Institute of Transportation Engineers *Trip Generation*, 9th Edition. Total includes trips to/from work.

The calculations are made on the basis of ‘average daily traffic’ on a normal weekday, using average trip generation rates derived through multiple traffic studies (350 for single-family and 86 for apartments) and published by ITE. The rates are expressed for ‘trip ends’—that is, traffic both leaving and coming to a housing unit.

Comparing traffic in 2017 to 2040, the future increase in trip ends can be calculated, which will represent 48.8% of all residential trip ends generated in the county.

It should be noted that the traffic generated includes trips to and from work and, more particularly, residents who work at a business within the county.

■ **Nonresidential Trip Generation**

Calculating traffic generated by businesses located in Dawson County is more problematical than residential trips because there is no breakdown of types of businesses in the county that is readily available. In addition, while employment forecasts have been made in terms of the number of jobs, there is no data available for floor areas, much less by detailed type of use.

The alternate is to view nonresidential traffic generation on a broad 'average' basis. For this, there is data available from ITE for a number of individual uses relating to the total number of trips generated per employee. These trips, of course, include not only trips taken by the employees (to/from work, lunch, etc.) but also customers and others that are attracted to the use, serve it or are served by it in some way.

The Average Daily Traffic (ADT) numbers on the following table, therefore, are calculated by dividing all trips to a use—employees, customers, deliveries to or from, etc.—by the number of employees alone. Since there is more data available for the average number of employees per 1,000 square feet of floor area, it enables a determination of the average total trips generated by the use by the same floor area (and thus the number per '1' square foot of floor area for impact fee calculations).

The table on the following page shows the 'trips per employee' per 1,000 square feet of floor area for those uses for which impact fees are commonly collected and for which the data is available.

Overall, the average trip generation rate of all uses shown on the following table is 10.21 trips per employee for 'industrial' uses and 25.31 for all 'commercial' uses. The 'industrial' category includes such uses as manufacturing and assembly, storage and transportation of goods; the 'commercial' category includes all sales and service uses such as stores, offices, motels, banks, amusements and private institutions). The last column shows the average rate for all 'commercial' uses listed, as opposed to the 'industrial' uses shown in the column on its left.

Although the 'overall' averages are useful for projecting total traffic generation, impact fees for particular uses will reflect the actual average trip generation rate for the specific use.

Appendix: Trip Generation

ITE Trips-per-Employee Data

			<u>ADT</u>		<u>Average</u>	<u>Average</u>
	<u>ITE</u>	<u>LAND USE</u>	<u>Trip Ends</u>		<u>by</u>	<u>All</u>
	<u>CODE</u>		<u>per Employee</u>		<u>Category</u>	<u>Commercial</u>
<i>Port and Terminal (000-099)</i>	30	Intermodal Truck Terminal	6.99	}	10.21	}
<i>Industrial (100-199)</i>	110	General Light Industrial	3.02			
	120	General Heavy Industrial	0.82			
	140	Manufacturing	2.13			
	150	Warehousing	3.89			
	151	Mini-Warehouse	32.47			
	152	High-Cube Warehouse	22.13			
<i>Lodging (300-399)</i>	310	Hotel or Conference Motel	14.34	}	13.58	
	320	Motel	12.81			
<i>Recreational (400-499)</i>	430	Golf Course	20.52	}	34.79	
	443	Movie Theater	53.12			
	460	Arena	10.00			
	480	Amusement Park	8.33			
	490	Tennis Courts	66.67			
	491	Racquet/Tennis Club	45.71			
	492	Health/Fitness Center	46.71			
	495	Recreational Community Center	27.25			
<i>Institutional (500-599)</i>	520	Private Elementary School	15.71	}	29.58	
	530	Private High School	19.74			
	560	Church/Place of Worship	26.24			
	565	Day Care Center	28.13			
	566	Cemetery	58.09			
<i>Medical (600-699)</i>	610	Hospital	4.50	}	5.26	
	620	Nursing Home	3.26			
	630	Clinic	8.01			
<i>Office (700-799)</i>	710	General Office Building	3.32	}	4.18	
	714	Corporate Headquarters Building	2.33			
	715	Single-Tenant Office Building	3.70			
	720	Medical-Dental Office Building	8.91			
	760	Research and Development Center	2.77			
	770	Business Park	4.04			
<i>Retail (800-899)</i>	812	Building Materials and Lumber Store	32.12	}	32.86	
	814	Variety Store	66.70			
	815	Free-Standing Discount Store	28.84			
	816	Hardware/Paint Store	53.21			
	817	Nursery (Garden Center)	21.83			
	818	Nursery (Wholesale)	23.40			
	826	Specialty Retail Center	22.36			
	841	Automobile Sales	21.14			
	850	Supermarket	87.82			
	854	Discount Supermarket	40.36			
	860	Wholesale Market	8.21			
	861	Discount Club	32.21			
	875	Department Store	11.56			
	890	Furniture Store	12.19			
<i>Services (900-999)</i>	912	Drive-in Bank	30.94			
						25.31

Source: *Trip Generation*, 9th Edition, Institute of Transportation Engineers, where survey results given for key land uses.

We know from the 2010 Census how many people worked in Dawson County based on commuting patterns. The next table provides a breakdown between commercial and industrial employment in the county and calculates trip ends generated by each.

Tax base valuations give us some clue as to the breakdown. When the County's 'industrial' and 'utility' tax valuations are combined, the figures suggest that a little over 88% of all uses are 'commercial' in nature, while almost 12% are industrial. These percentages, applied to total employment in the county, give us the estimated number of employees in 2010 in each category.

Nonresidential Trip Generation: 2010 Census


	Tax Base		Percent of Total	2010 Employees	Average ADT	Total Nonres Trip Ends	
Commercial	\$ 235,135,994	}	\$ 235,135,994	88.4%	7,049	25.31	178,410
Industrial	\$ 6,269,281		\$ 30,892,635	11.6%	1,581	10.21	16,138
Utility	\$ 24,623,354						
Total Nonresidential	\$ 266,028,629		\$ 266,028,629		7,583		194,548
				Internal Commutes*	3,644	times 2 =	(7,288)
					Net Nonres Trips		187,260

* Residents who work in Dawson County. These trips are included in residential trip generation rate.

The table calculates the total number of trips using the average rates for commercial and industrial from the ITE Trips-per-Employee Data table on the previous page. From the total of all nonresidential trips is deducted the number of trips to/from work generated by county residents, since these trips have already been calculated as part of the residential trip generation rates (i.e., county residents driving to/from work at county establishments).

Lastly, the following table calculates the total number of trip ends that will be generated by new nonresidential growth in future traffic on Dawson County's roads.

Nonresidential Trip Generation: 2017-2040 New Growth Increase

	2017 Employees	2017 Trip Ends	2040 Employees	2040 Trip Ends	2017-2040 Increase	Percent New Growth Trip Ends
Commercial	9,095	230,195	15,521	392,837	162,642	
Industrial+Utility	1,195	12,198	2,039	20,813	8,615	
Total	10,290	242,393	17,560	413,650	171,257	
Less: Internal Commutes at	3.75%	(9,080)		(15,496)	(6,416)	
Net Nonres Trip Ends		233,313		398,154	164,841	

The preceding table shows the number of trip ends currently generated by Dawson County businesses based on 2017 employment. The trip ends by use are distributed using the same percentages calculated on the previous table. The same calculations are made for the year 2040 based on projected employment in the county, and the difference between 2017 and 2040 represents trip ends generated by future growth and development. This totals 41.4% of all nonresidential 2040 trip ends.

The results of the residential and nonresidential trip generation analyses are combined on the Summary table at the beginning of this Appendix Section for an overall calculation of new growth's share of future traffic generated by Dawson County residents and businesses. From these figures, pass-by and diverted trip ends are then deleted to determine primary trip ends, which more closely relates to vehicles on the road and thus contribute to traffic congestion.

■ Terminology

This Methodology uses the term 'average daily traffic' (ADT) for a weekday, which is defined by ITE as the 'average weekday vehicle trip ends', which are "the average 24-hour total of all vehicle trips counted from a study site from Monday through Friday."

Additionally, ITE defines a 'trip or trip end' as "a single or one-direction vehicle movement with either the origin or the destination (exiting or entering) inside a study site. For trip generation purposes, the total trip ends for a land use over a given period of time are the total of all trips entering plus all trips exiting a site during a designated time period".

Lastly, ITE defines 'average trip rate' as "the weighted average of the number of vehicle trips or trip ends per unit of independent variable (for example, trip ends per occupied dwelling unit or employee) using a site's driveway(s). The weighted average rate is calculated by dividing the sum of all independent variable units where paired data is available. The weighted average rate is used rather than the average of the individual rates because of the variance within each data set or generating unit. Data sets with a large variance will over-influence the average rate if they are not weighted.

Backup material for agenda item:

2018 Millage Rate and Property Tax (*1st of 3 hearings. 2nd hearing will be held at 4 p.m. August 9, 2018, and 3rd hearing will be held at 6 p.m. August 16, 2018.*)



DAWSON COUNTY BOARD OF COMMISSIONERS AGENDA FORM

Department: Finance

WorkSession:

Prepared By: Vickie Neikirk

Voting Session: 8.2.18

Presenter: Chairman Billy Thurmond

Public Hearing: Yes XX No _____

Agenda Item Title: First (of 3) Public Hearings for setting the County government millage rate for Tax year 2018

Background Information:

First required millage rate hearing for 2018 tax digest. Because of growth in the tax digest due to reevaluation, the rollback rate would be 7.393. The proposed millage rate of 8.138 is the same rate as the last 10 years. There will be 3 public hearings.

Current Information:

The Board of Commissioners is responsible for setting the millage rate for the County Government. The next 2 hearings will be Aug 9, at 4 pm and Aug 16 at 6 pm

Budget Information: Applicable:___ Not Applicable: _____ Budgeted: Yes No _____

Fund	Dept.	Acct No.	Budget	Balance	Requested	Remaining
100						

Recommendation/Motion:

Department Head Authorization: _____

Date: _____

Finance Dept. Authorization: Vickie Neikirk

Date: 7.24.18

County Manager Authorization: [Signature]

Date: 7/26/18

County Attorney Authorization: _____

Date: _____

Comments/Attachments:

NOTICE OF PROPERTY TAX INCREASE

The **Dawson County Board of Commissioners** has tentatively adopted a millage rate which will require an increase in property taxes by **10.08** percent.

All concerned citizens are invited to the public hearing on this tax increase to be held in the Commissioners Meeting Room at the Dawson County Courthouse/Administration Building located at 25 Justice Way, Dawsonville, Georgia on **August 2, 2018 at 6:00 pm.**

Times and places of additional public hearings on this tax increase will be held in the Commissioners Meeting Room at the Dawson County Courthouse/Administration Building located at 25 Justice Way, Dawsonville, Georgia on **August 9, 2018 at 4:00 pm, and August 16, 2018 at 6:00 pm.**

The tentative increase will result in a millage rate of **8.138 mills**, an increase of **0.745 mills**. Without this tentative tax increase, the millage rate will be no more than **7.393 mills**. The proposed tax increase for a home with a fair market value of **\$250,000** is approximately **\$74.50** and the proposed tax increase for non-homestead property with a fair market value of **\$200,000** is approximately **\$59.60**.

Publish on July 25, August 1, and August 8, 2018 as a display ad. Not in legal section.

Notice not to be less than 30 square inches

NOTICE

The Dawson County Board of Commissioners will be setting the millage rate for 2018 for Dawson County's purposes during a meeting in the Commissioners Meeting Room in the Dawson County Courthouse/Administration Building located at 25 Justice Way, Dawsonville, Georgia during a regularly scheduled meeting on August 16, 2018 that begins at 6:00 p.m. and pursuant to the requirements of O.C.G.A. Section 48-5-32, the Dawson County Board of Commissioners hereby publishes the current year's tax digest and levy, along with the history of the tax digest and levy for the past five (5) years. (ad publish 07/25/18, 08/01/18 & 08/08/18)

CURRENT 2018 TAX DIGEST AND 5 YEAR HISTORY OF LEVY

INCORPORATED	2013	2014	2015	2016	2017	2018
Real & Personal	72,497,801	79,404,687	83,214,836	91,187,440	102,426,129	122,042,206
Motor Vehicles	207,450	169,780	2,938	66,180	54,600	49,200
Mobile Homes	2,410	1,340	1,340			
Timber - 100%						
Heavy Duty Equipment						
Gross Digest	72,707,661	79,575,807	83,219,114	91,253,620	102,480,729	122,091,406
Less M & O Exemptions	8,859,483	9,629,715	10,462,211	12,671,621	13,990,679	17,519,295
Net M & O Digest	63,848,178	69,946,092	72,756,903	78,581,999	88,490,050	104,572,111
State Forest Land Assistance Grant Value						
Adjusted Net M&O Digest	63,848,178	69,946,092	72,756,903	78,581,999	88,490,050	104,572,111
Gross M&O Millage	13.618	13.194	13.009	12.896	14.425	14.599
Less Rollbacks	5.480	5.056	4.871	4.758	6.287	6.461
Net M&O Millage	8.138	8.138	8.138	8.138	8.138	8.138
Net Taxes Levied	\$519,596	\$569,221	\$592,096	\$639,500	\$720,132	\$851,008
UNINCORPORATED	2013	2014	2015	2016	2017	2017
Real & Personal	1,056,707,249	1,155,744,349	1,250,703,031	1,315,990,411	1,394,032,646	1,572,997,915
Motor Vehicles	72,598,180	61,251,430	46,193,350	35,695,240	28,320,790	22,736,970
Mobile Homes	940,069	892,818	889,289	955,649	952,109	1,493,910
Timber - 100%	385,486	146,332	5,272	88,593	96,561	190,449
Heavy Duty Equipment	0	0	0	0	0	0
Gross Digest	1,130,630,984	1,218,034,929	1,297,790,942	1,352,729,893	1,423,402,106	1,597,419,244
Less M & O Exemptions	169,116,969	176,050,212	186,124,433	193,872,574	201,405,457	222,450,006
Net M & O Digest	\$961,514,015	\$1,041,984,717	\$1,111,666,509	\$1,158,857,319	\$1,221,996,649	\$1,374,969,238
State Forest Land Assistance Grant Value	1,156,348	1,262,801	1,285,254	1,302,253	1,316,604	895,860
Adjusted Net M&O Digest	962,670,363	1,043,247,518	1,112,951,763	1,160,159,572	1,223,313,253	1,375,865,098
Gross M&O Millage	13.618	13.194	13.009	12.896	14.425	14.599
Less Rollbacks	5.480	5.056	4.871	4.758	6.287	6.461
Net M&O Millage	8.138	8.138	8.138	8.138	8.138	8.138
Net Taxes Levied	\$7,834,211	\$8,489,948	\$9,057,201	\$9,441,379	\$9,955,323	\$11,196,790
TOTAL COUNTY	2013	2014	2015	2016	2017	2017
Total County Value	1,026,518,541	1,113,193,610	1,185,708,666	1,238,741,571	1,311,803,303	1,480,437,209
Total County Taxes Levied	\$8,353,808	\$9,059,170	\$9,649,297	\$10,080,879	\$10,675,455	\$12,047,798
Net Taxes \$ Increase	-\$533,372	\$705,362	\$590,128	\$431,582	\$594,576	\$1,372,343
Net Taxes % Increase	-6.00%	8.44%	6.51%	4.47%	5.90%	12.86%

PRESS RELEASE ANNOUNCING A PROPOSED PROPERTY TAX INCREASE

The Dawson County Board of Commissioners today announces its intention to leave the current millage rate of 8.138 unchanged, which would increase the 2018 property taxes it will levy this year by 10.08 percent over the rollback millage rate.

All concerned citizens are invited to the public hearings on this matter to be held in the Commissioners Meeting Room at the Dawson County Courthouse/Administration Building located at 25 Justice Way, Dawsonville, Georgia at the following times:

Hearing 1: August 2, 2018 at 6:00 p.m.

Hearing 2: August 9, 2018 at 4:00 p.m.

Hearing 3: August 16, 2018 at 6:00 p.m.

Each year, the Board of Tax Assessors is required to review the assessed value for property tax purposes of taxable property in the County. When the trend of prices on properties that have recently sold in the County indicate there has been an increase in the fair market value of any specific property, the Board of Tax Assessors is required by law to re-determine the value of such property and adjust the assessment. This is called a reassessment.

When the total digest of taxable property is prepared, Georgia law requires that a rollback millage rate must be computed that will produce the same total revenue on the current year's digest that last year's millage rate would have produced had no reassessments occurred.

The FY 2019 budget tentatively adopted by the Dawson County Board of Commissioners requires a millage rate higher than the rollback millage rate to be able to maintain and continue to provide much needed services to the citizens of the County. Therefore, before the Dawson County Board of Commissioners may finalize the tentative budget and set a final millage rate, Georgia law requires three public hearings to be held to allow the public an opportunity to express their opinions on the increase.

Backup material for agenda item:

1. Consideration of Georgia Department of Administrative Services Vehicle Cooperative Agreement Purchase Request- Chief Deputy Greg Rowan / Purchasing Manager Melissa Hawk



DAWSON COUNTY BOARD OF COMMISSIONERS AGENDA FORM

Department: Sheriff's Office

Work Session: _____

Prepared By: Melissa Hawk

Voting Session: 08/02/2018

Presenter: Greg Rowan/Melissa Hawk

Public Hearing: Yes No

Agenda Item Title: GA DOAS Vehicle Cooperative Agreement Purchase Request

Background Information:

Dawson County residents approved the SPLOST (known as SPLOST VI) continuation on November 4, 2014. The resolution includes that 11% of the SPLOST VI tax revenue is to be spent on Sheriff vehicles/equipment.

Current Information:

The Purchasing Department and the Sheriff's Office concluded that the best recourse to fulfill this stipulation is to procure from the Georgia Department of Administrative (DOAS) Police Pursuit contract to acquire 2 – 2019 Chevrolet Tahoes from Hardy Chevrolet total amount of \$72,870.00 and 1 – 2018 Dodge Charger from Akin Ford Corp in the amount of \$23,178.75 and from the DOAS Administrative Vehicle contract 1 – 2018 F150 from Allan Vigil Ford in the amount of \$29,515.00.

Budget Information: Applicable: Not Applicable: Budgeted: Yes No

Fund	Dept.	Acct No.	Budget	Balance	Requested	Remaining
324	3300	542200	\$658,993.00	\$286,134.25	\$125,563.75	\$160,570.50

Recommendation/Motion: To approve the Sheriff's Office to procure vehicles and equipment as per the SPLOST VI resolution from the GA DOAS Police Pursuit Vehicle contract in the amount of \$96,048.75 and the GA DOAS Administrative Vehicle contract in the amount of \$29,515.00 through a cooperative procurement.

Department Head Authorization: Greg Rowan

Date: 07/23/2018

Finance Dept. Authorization: Vickie Neikirk

Date: 7/26/18

County Manager Authorization: DH

Date: 7/26/18

County Attorney Authorization: _____

Date: _____

Comments/Attachments:

Backup material for agenda item:

1. Consideration of Countywide Computer Replacement Program



DAWSON COUNTY BOARD OF COMMISSIONERS AGENDA FORM

Department: I/T

Work Session: 7/26/18

Prepared By: Sherri Maxwell

Voting Session: 8/2/18

Presenter: James Tolbert

Public Hearing: Yes No

Agenda Item Title: Computer Replacement

Background Information:

Three-phase computer replacement program county wide from 2018-2020. The total estimated cost for 2018 is \$145,000, funds coming from SPLOST. Total estimated cost for the 3-year period is \$145,000 per year, funds coming from SPLOST (or IT Capital).

Current Information:

First computer replacement will begin in 2018 with the first 100 computers being replaced. The \$1,450 cost per computer represents state contracting pricing. The total cost (computers, labor and misc supplies, i.e. cables, wiring) will be covered under SPLOST VI.

Budget Information: Applicable: Not Applicable: Budgeted: Yes No

Fund	Dept.	Acct No.	Budget	Balance	Requested	Remaining
324	1535				\$145,000 FY 18	

Recommendation/Motion: _____

Department Head Authorization: James Tolbert

Date: 7/26/18

Finance Dept. Authorization: Vickie Neikirk

Date: 7/18/18

County Manager Authorization: DH

Date: 7/20/18

County Attorney Authorization: _____

Date: _____

Comments/Attachments:

COMPUTER REPLACEMENT

- 2018 Phase 1 = \$145,000.00 (Splost #6)

100 Dell PC's	\$123,251
3 rd Party Labor	15,000
Misc: cables, wiring, etc	4,000

- 2019 Phase 2 = \$145,000.00
- 2020 Phase 3 = \$145,000.00



Each computer cost approx. \$1,450.00
Approximately 300 computers county-wide over 3 yrs



Represents State Contract Pricing

\$179,000 remaining in Splost

Backup material for agenda item:

2. Consideration of Request to Extend HVAC Services Contract Renewal Period



DAWSON COUNTY BOARD OF COMMISSIONERS AGENDA FORM

Department: Facilities

Work Session: 7/26/18

Prepared By: Sherri Maxwell

Voting Session: 8/2/18

Presenter: James Tolbert

Public Hearing: Yes No

Agenda Item Title: Contract Term Amendment for HVAC Services

Background Information:

The Dawson County BOC Chairman awarded a contract on November 5, 2015, to SetPoint HVAC Services for the scope of work within RFP #256-15, which will expire on 12/31/2018.

Current Information:

A new Purchasing Policy Ordinance was adopted on February 2, 2017. The number of renewal years for professional services contracts was extended from two (2) one (1)-year renewals to four (4) one (1)-year renewals. Conditioned Air Services must be licensed by the Georgia Secretary of State, making this contract a professional service.

Budget Information: Applicable: Not Applicable: Budgeted: Yes No

Fund	Dept.	Acct No.	Budget	Balance	Requested	Remaining

Recommendation/Motion: _____

Department Head Authorization: James Tolbert

Date: 7/16/18

Finance Dept. Authorization: Vickie Neikirk

Date: 7/18/18

County Manager Authorization: DH

Date: 7/20/18

County Attorney Authorization: _____

Date: _____

Comments/Attachments:

These contracts impact county wide and are budgeted in each separate department.

HVAC Repair/Maint Contracts

- ▶ **Currently have SetPoint**
- ▶ **Contract to expire Dec 31,2018**
- ▶ **Requesting contract renewal terms to be extended an additional 2 years based on new Purchasing Policy Ordinance as of February 2, 2017**

Backup material for agenda item:

3. Consideration of Keep Dawson County Beautiful Executive Director Appointment



DAWSON COUNTY BOARD OF COMMISSIONERS AGENDA FORM

Department: Keep Dawson County Beautiful

Work Session: 07.26.18

Prepared By: Robbie Irvin on behalf of KDCB Board

Voting Session: 08.02.18

Presenter: Chairman Billy Thurmond

Public Hearing: Yes _____ No _____

Agenda Item Title: Presentation of Keep Dawson County Beautiful Executive Director Appointment

Background Information:

The position of executive director for Keep Dawson County Beautiful must be filled by a current Dawson County employee. Following the resignation notification of the acting executive director, on behalf of the KDCB board, he/she will present a candidate for appointment to the Dawson County Board of Commissioners for approval.

Current Information:

Former Executive Director Robbie Irvin requests Kara Wilkins be appointed to the position of executive director of Keep Dawson County Beautiful. The position already has been discussed with Ms. Wilkins and she has agreed to accept. The budgeted, annual salary of \$5,000 will be transferred, upon approval, to Ms. Wilkins as a supplement to her current salary. For 2018, the remaining balance paid to her would be approximately \$1,923. ($\$5,000/26=\192.30 per pay period) Paid out over the 10 remaining pay periods of 2018.

Budget Information: Applicable: Not Applicable: _____ Budgeted: Yes No _____

Fund	Dept.	Acct No.	Budget	Balance	Requested	Remaining
			\$5,000			\$1,923

Recommendation/Motion: _____

Department Head Authorization: _____

Date:

Finance Dept. Authorization: Vickie Neikirk

Date: 7/18/18

County Manager Authorization: DH

Date: 7/20/18

County Attorney Authorization: _____

Date: _____

Comments/Attachments:



KEEP DAWSON COUNTY BEAUTIFUL

July 19, 2018

Dawson County Commission Chairman Billy Thurmond
& Dawson County Board of Commissioners
25 Justice Way Suite 2313
Dawsonville, GA 30534

Re: Keep Dawson County Beautiful Executive Director

Dear Mr. Chairman and Board,

It is with mixed emotions that I pin this letter. I will be leaving my employment with Dawson County and my service as Executive Director for Keep Dawson County Beautiful effective July 24th 2018 to take the position of Planning Director with the City of Dawsonville. I have enjoyed my time serving as the Executive Director and will miss working with this stellar group of people. As exiting Executive Director it is my duty to recommend a replacement to take the reins in my stead. Having said that I would like to recommend Kara Wilkins for the position. I believe her current role along with her enthusiasm for environmental issues makes her the perfect fit for the job. I know that if approved she would make a great addition to the KDCB team and will prove to be a valuable liaison between this organization, Dawson County and the citizens at large. Thank you for allowing me to serve in this capacity during my employment with Dawson County and if I can ever be of service to any of you please let me know.

Godspeed.

Sincerely,

A handwritten signature in black ink, appearing to read 'Robbie Irvin', with a long horizontal flourish extending to the right.

Robbie Irvin
Executive Director, Keep Dawson County Beautiful